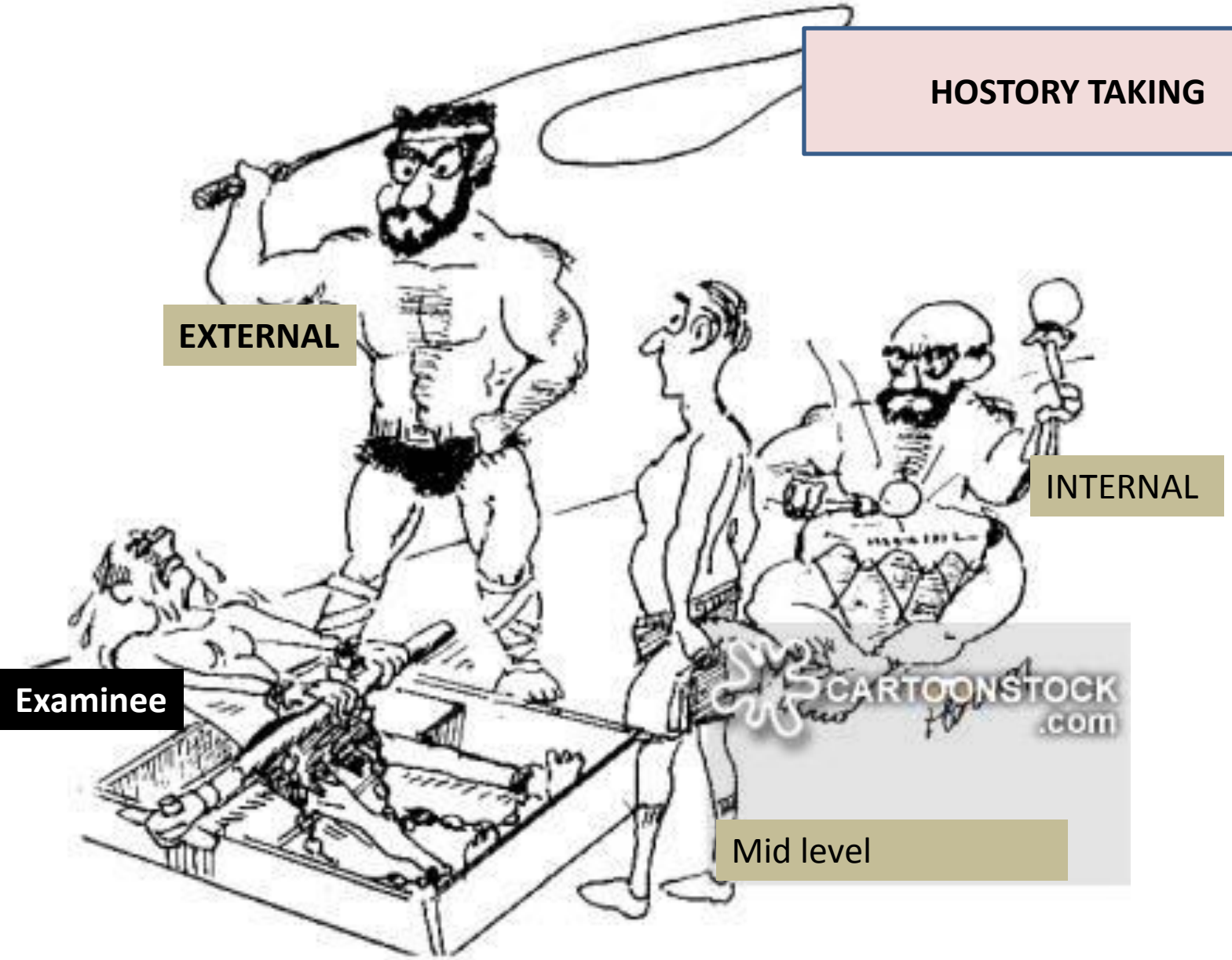
Causology is the lock
History is key
Medicine ward is locked door



History & causology
For block posting ,
3rd to 5th year and
post graduate student
Dr . Shahidullah shamol
FCPS (medicine)

Dr.shamol /history

HOSTORY TAKING



Dr.shamol/history

History analysis ---of 14 symptoms	
FEVER –	Dysphagia
Cough –	Anaemia
Dyspnea	Arthritis
Chest pain	Weakness
Abdominal pain	Head ache
Diarrhoea	
Oedema	
Vomiting	
Jaundice	

Dr.shamol /history

FEVER



Dr.shamol /history

History of FEVER

Dr.shamol /history

duration(for how many days) <7 days –viral / > 7 enteric fever
low grade or high grade—high –dengue /enteric . Low --TB
onset (chill or rigor)—malaria , UTI , pneumonia ,cholangitis
how long fever persist –continued –enteric fever /dengue
how subsided →with sweating / spontaneously/ with medication
when the fever comes and subsided (at evening or subsided at night/ no specific pattern)—evening rise TB
character (continued—enteric fever / intermittent—most fever)
highest recorded temperature—if patient measure the temp

Dr.shamol /history

Now systemic query
cough present or not –respiratory cause
running nose, sore throat , malaise --viral
chest pain –chest pain and short duration fever indicate pneumonia
contact with Tb patient/ history of taking previous anti-tb drug
travelling to hilly area –malaria / patient residence ---endemic zone of kala-azar –mymensingh
night sweat and weight loss and anorexia(TB/lymphoma)
if wt loss then how many kg lost in last few months
head ache ,photophobia , convulsion , unconsciousness –meningitis ,encephalitis
jaundice –viral hepatitis , liver abscess,malaria and leptospira
if female / elderly male Ho UTI ---burning sensation of micturation /during voiding/urgency /frequency

When u will not get any clue to cause of fever extra history?
abdominal pain (TB/ liver abscess)
joint pain , rash (connective tissue)
bowel habit alteration (TB)
lymphoma –itching , pelbestin fever ()
Iv drug user / dental caries / know valve disease (infective endocarditis)
any bleeding manifestation –epistaxsis , gumbleeding , bruise ,purpura ,

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Just memorize this history..use every where u got fever to describe it like this , or better than this

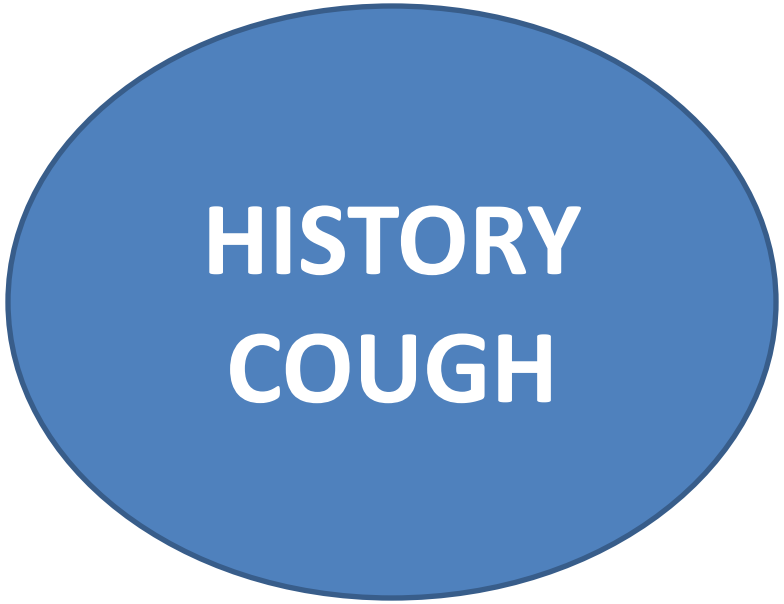
Example:

Presenting complains started 2 month ago when the patient developed fever which initially was low grade intermittent subsequently turned in to high grade (or which was high grade and continued in nature[1]). The temperature raised mostly at the evening and used to persist 4 to 6 hrs and subsided with sweating with or (without) medication (or without sweating spontaneously or after medication). Highest recorded temperature was 104^0F (or the fever was not documented).this febrile period was accompanied with anorexia, nausea, malaise, drenching night sweating (only mention if patient tells u). The patient did not complain any cough, chest pain, bowel disturbance , abdominal pain ,joint, rash, any bleeding manifestation, urinary problem like frequency or burning sensation during voiding .(if present then elaborate each complained next line e.g. Cough --).he lost 10 kg weight during the course of illness . The patient had not any contact with known TB patient or no history of taking ant TB drug previously. He didn't travel hilly area or border area recently. **Personal history** (important --- IV drug user history)

COUGH



Dr.shamol /history



Dr.shamol /history

Duration –how long? acute < 3wks
episodic / intermittent, --asthma or other illness or persistent ==ILD
dry or productive (dry ---ILD,drug, productive –COPD,TB , brochiectasis)
if productive the following history of sputum should be taken
Amount –scanty / moderate / profuse color –whitish / yellowish nature –mucoid , purulent , forthy / serous smell—foul-smelling (lung abscess / brochiectasis)
diurnal variation present or not (for asthma more at early morning /night)
seasonal variation present or not
relation with posture –changing posture increase sputum production (brochiectasis))
triggering factor –pollen cold air , exposure to dander—asthma
does the cough hamper sleep

Dr.Shamol / History

HO atopy or allergy –asthma
family history asthma
occupation history –animal contact ,asthma, ILD—stone crashing , ship breaking
is it associate with fever or not –pneumonia , TB , lung abscess
chest pain or not –peumonia , ca bronchus
breathlessness or not –heart failure , bronchial asthma Swelling of body –heart failure
drug history --ACE
personal history –smoker

Dr.shamol /history

haemoptysis or coughing out of blood
if present then fresh or clotted blood mixed with sputum amount (mild / massive / profuse) how many episode need any hospitalization
HO atopy or allery
family history asthma
occupation history –animal contact ,asthma, ILD—stone crashing , ship breaking
is it associate with fever or not –pneumonia , TB , lung abscess
chest pain or not –peumonia , ca bronchus
breathlessness or not –heart failure , bronchial asthma
drug history --ACE
personal history –smoker

Just memorize this history ..use every where u got cough to describe it like this , or better than this

The patient also developed episodic / intermittent cough for same duration or last 1 months .which initially was dry and later turn into productive (**or the patient developed episodic productive cough for same duration or for last 1 month**) containing……scanty **(in case mucoid)/** moderate / profuse(**use in case of purulent**) ……whitish **(in case mucoid)/** yellowish **(use in case of purulent**)……mucoid / purulent /mucopurulant / frothy sputum which more marked or aggravated at night/ early morning, exposure to cold / more in winter and exposure to trigger factor like pollen , dander (**or having no diurnal variation or seasonal variation or any specific triggering factor**). (**If case is brochiectasis then add—sputum production is increased with change of posture more at left lateral position**). He has no history coughing out of blood (or **patient also give history several episodes of coughing out moderate/ profuse/ scanty clotted blood that mixed with sputum or fresh blood**). The cough was not associated with fever, chest pain, breathlessness (if present then elaborate each complained in next line --). The patient has no history of contact with TB patient,

Dr shamol /history

Personal History: smoker or not

Occupation: contact with animal,

Stone crashing / ship breaking (ILD)

Past history TB (bronchiectasis), atopy

Family history of asthma

In case of dry cough

Patient also developed or intermittent dry cough for last 1 month without specific diurnal or **seasonal variation or triggering** factors and no history of coughing out of blood

in case of persistent cough

Usually in ILD –dry and persistent cough (associated with exertion breathlessness)

Can present in COPD(more common) / bronchial asthma in acute exaggeration –(usually productive)

eg.—patient has history of episodic productive cough for l5 year but for last 1 month it become persistent

Dr.shamol /history

ABC OF FEVR

Dr.shamol /history

What is the normal temperature ?
Normal temperature is 370 C or 98.40 F
Site where temperature seen?
in oral cavity-- under surface of the tongue in the axilla & in rectum or internal ear
Where core temperature is seen?
in rectum or the external auditory meatus
What is the difference of temperature in different site?
temperature in mouth is 0.5°C or 1^0 F higher than the axilla temperature in rectum is 0.5°C or 1^0 F higher than the mouth
When temp is highest n lowest? What Is the diurnal variation of temp?
body temperature is lowest in the morning and reaches a peak between 6 pm and 10 pm this diurnal difference is not more than 0.5^0 C
What do you mean by fever?
Fever is an elevation of body temperature that exceeds the normal daily variation and occurs in conjunction with an increase in the hypothalamic set point (e.g., from 37°C to 39°C).
What do you mean by hyperthermia ?
Hyperthermia is characterized by an uncontrolled increase in body temperature that exceeds the body's ability to lose heat. The setting of the hypothalamic thermoregulatory center is unchanged

Dr.shamol / history

What is hyperpyrexia?

when body temperature increases hyperpyrexia defined as above 41.6°C

causes

cerebral malaria

garm negative septicaemia

heat stroke

malignant hyperthermia-drug

- anaesthetic agents [e.g. halothane] or
- muscle relaxants [e.g. suxamethonium]),
- the neuroleptic malignant syndrome (a reaction to antipsychotic medication)

intracranial haemorrhage or head injury

Deference between hyperthermia and fever

	FEVER	**HYPERTHERMIA**
causes /pathology	Involve pyrogenic cytokines	Failure in thermoregulatory homeostasis
Change in hypothalamic set point	occur	remain unchanged
temp	Rarely exceed 41 ^{0}C	Can exceed 41 ^{0}C
Complications	rare	common
Diurnal variation	present	Absence

Dr.shamol /history

Classify fever with definition and example?

Type of fever

- Continued
- Remittent
- Intermittent -
  - a.Quotidian
  - b.Tetrtian
  - C.Quartan

1. Continued fever : When fever does not fluctuate more than about 1` C (1.5' F) during 24 hours but never touches the base line is called continued fever.

- **Causes** :-

I. I .Typhoid fever
II. 2_ Millary tuberculosis
III. Lobar pneumonia

2. Remmittent fever

- When daily fluctuations exceed 2^0C called **re**mittent fever.
- **Causes**

I. Amoebic liver abscess
II. Lung abscess
III. Collection of pus ¡n the tissues

Dr.shamol / history

3. Intermittent fever

When the fever is present only, for several hours during the day it is called intermittent-fever.

a) Quotidian:

When a paroxysm of intermittent fever occurs daily. the type is quotidian.

Cause - Kala-azar (double quotidian)

b) Tertian

When fever comes on alternate daʸs, it is tertian.

Causes: P. Vivax and P .Ovale Malaria.

C) Quartan

When there is Two days interval between two consecutive attacks. Then it is call quartan.

Cause- P. Malariae infection.

Pel-Ebstein fever

A specific kind of fever associated with Hodgkin's lymphoma, being high temp for one week and low temp for the next week and so on

Stepladder pattern

Typhoid fever may show a specific fever pattern, with a slow stepwise increase and a high plateau

Dr.shamol /history

PUO?

PUO is defined as a temperature persistently above 38.0 °C for more than 3 weeks, without diagnosis despite initial investigation

during 3 days of inpatient care or

after more than two outpatient visits

Causes of PUO : **MIC**

Malignancy----

- Heamatological malignancy :lymphoma, leukamia, myeloma
- Solid tumour : renal,liver,colon carcinoma

Infection-------Abscess, infective endocarditis , TB

Connective tissue disease—SLE , vasculitis , adult still

a patient with three days fever	**more than 7 day fever**
viral fever	enteric fever
malaria	Malaria
UTI	pneumonia
pneumonia	TB (>2week)
	kala-azar (>2week)
	liver absecess

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fever with unconsciousness	
➢ cerebral malaria ➢ encephalitis ➢ meningo-encephalitis	

What is hypothermia ?

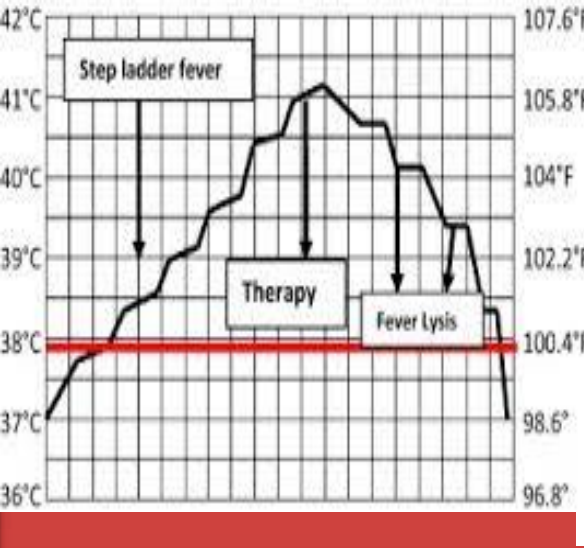
Hypothermia is defined as a temperature of less than 35°C.
Usually measure in core temperature

- Prolong water immersion
- exposure to cold weather (elderly immobile patients)
- severe hypothyroidism/maxedema coma
- drug overdosage
- alcohol intoxication
- stroke or head injury

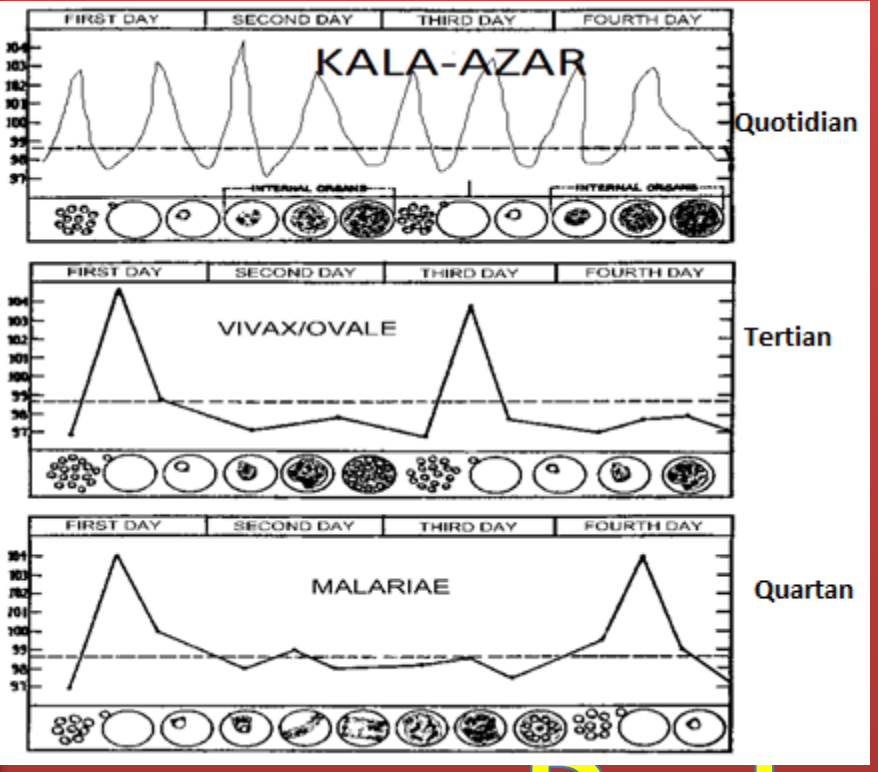
What is Fictitious fever? Clue of Fictitious fever ?

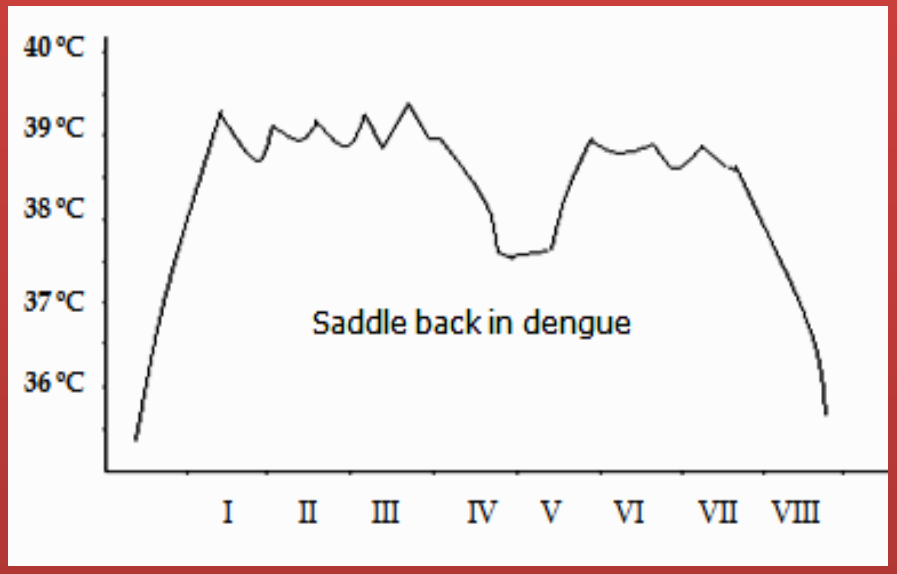
Fictitious fever is produced artificially by the patient or an attendant

A—**appearancc**—Patient looks well
B— **Bizarre** temperature chart with temperatures >41°C
C— No **correlation** between temperature and pulse rate
D--- absence of **diurna**l variation
E— **ESR and C-reactive** protein is normal
F—**fall of temp**—No sweating during when temp fall or subsided
g—X
H— Evidence of **self-harm** ,injection
I—**independent observer**--Temperature is normal when taken by an independent supervised









Dr.shamol /history

FEVR WITH CAUSOLOGY

First few slide only for MBBS

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fever with unconsciousness	fever with convulsion
for MBBS student answer (1,2,3) if want more (5,6) **infection** **1. Cerebral Malaria** **2. viral encephalitis** **3. meningoencephalitis** 4. Dengue (**only post graduate**)* 5. cerebral abscess 6. septicemia **non-infectious** 1. heat stroke 2. pontine haemorrhage 3. malignant hyperpyerexia / drug *→ in dengue actually patient become unconscious when fever subside so it is better to omit	1. Cerebral Malaria 2. viral encephalitis 3. meningoencephalitis 4. Dengue (**only post graduate**) 5. cerebral abscess

Dr.shamol /history

fever jaundice	fever jaundice & unconsciousness
for MBBS student (1 ,2,3,4, 5,6) **1. acute viral hepatitis** **2. leptospirosis** **3. cerebral malaria** **4. liver abscess** **5. cholangitis** **6. septicemia** 7. Dengue 8. yellow fever (nt in bangladesh) 9. drug reaction 10. herediatary haemolytic anaemia with fever due to any causes	1. cerebral malaria 2. fulminative hepatic failure 3. dengue 4. leptospirosis 5. septicemia

Dr.shamol /history

fever jaundice	**f fever jaundice & unconsciousness**
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Dr.shamol /history

fever with rash –white color only for MBBS		
infection		**connective tissue**
bacteria MERIT—Less M --- --meningococcal inf. E—enteric fever R—rickettsia I—infective endocarditis T-TSS le–leptospirosis --Lyme disease S-Syphilis, S -scarlet fever	**virus** **RP of D MCH** R-- Rubella P—parvo-virus B—19 of D--dengue M-- Measles C—chikungunya --Chickenpox (varicella) H—HIV ---viral haemorrhagic fever	SLE dermato-myositis vasculitis PAN henoch scholein purpura adult still
blood		**drug**
acute leukaemia & aplastic anaem ia		drug rash

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causes fever with rash according to day of appearance ?
very sick person must take double eggs 1st day -> varicella (chicken pox) second day → scarlet fever third day → pox (small pox) fourth day →measles , rubella /german measles fifth day →typhus/ rickettsia six day → dengue seven day →enteric fever

Dr.shamol /history

fever with purpuric rash

infection

bacteria

1. meningococcal infection
2. leptospirosis
3. Rickettsia

virus

1. dengue
2. viral haemorrhagic fever

blood

1. acute leukaemia
2. aplastic anaemia

connective tissue

1. SLE
2. vasculitis
   a. PAN
   b. henoch scholein purpura

Drug

1. Fever with Rash with arthritis white color for MBBS

viral (duration is less than 6 wk)

1. chikungynia
2. parvovirus
3. HBV
4. HIV
5. Rubella

connective tissue

1. psoriasis
2. SLE
3. vasculitis
4. systemic sclerosis
5. Dermatomyositis
6. Adult still

other

1. Sarcoidosis
2. Rheumatic fever

Fever with relative bradycardia	Fever with relative tachycardia
in this condition increase pulse rate less than 10 / min for per degree F increase of temperature – example : **1. viral fever --dengue** **2. first week of enteric fever** other **1. pyogenic meningitis** **2. leptospirosis** **3. brucellosis**	increase pulse rate more than 10 / min for per degree F increase of temperature is called relative tachycardia Example : 1. acute rheumatic fever 2. polyarteritis nodosa

Dr.shamol /history

fever with hepatopleno megaly with thrombocytopenia	spleno megaly
In CBMC In—infection 1. Kala-azar 2. chronic Malaria with hypersplenism 3. AIDS **C--Congestion** 1. CLD with hypersplenism **B—blood** 1. lymphoma 2. CML with blast crisis 3. Acute leukaimia **M—malignancy** 1. hepatoma on the top of CLD **C— connective tissue** 1. SLE 2. Felty	**In CBMC** In—infection 1. Kala-azar 2. chronic Malaria 3. Disseminated TB 4. AIDS 5. Infective endocarditis **C--Congestion** 1. CLD with SBP **B—blood** 1. lymphoma 2. CML with blast crisis 3. Acute leukaimia **M—malignancy** 1. hepatoma on the top of CLD **C— connective tissue** 1. SLE 2. Felty 3. adult still

Only for post-graduate student

Dr.shamol /history

fever for 14 day with drowsy / unconsciousness	**fever with neurological sign**
1. enteric fever –coma vigil 2. tuberculous meningitis 3. meningococcal meningitis 4. rickettsia 5. Addison 6. septicemia 7. fever with electrolytes imbalance	cerebral abscess tuberculoma / tb meningitis encephalitis meningoencephalitis infective endocarditis Toxoplasma (HIV) Vasculitis /SLE

Dr.shamol /history

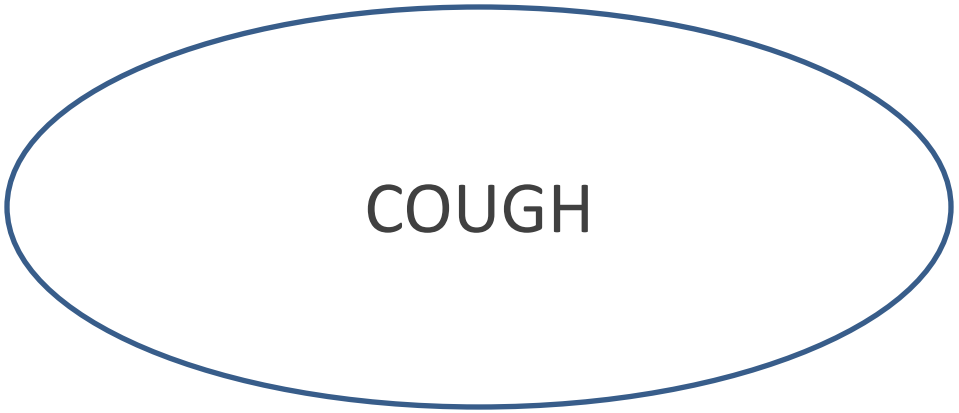
fever with shock to remember AIDS	**fever with carditis/ heart failure**
A--Algid malaria I--infective endocarditis D--Dengu sock syndrome S--staph. Toxic shock syndrome S--septicemia due to pneumonia UTI skin infection /cellulitis meningococcal infection pelvic infection obstetrical septic abortion retained dead fetus / amionictic fluid embolism	MISS RIVER pr (MR. VIRSSEL) R--Rhematic fever I--infective endocarditis V--viral myocarditis E—complicated enteric fever R—Ricketts ia Mi—miningococcal S--SLE S—Septicaemia L—leptospirosis

Dr.shamol / history

fever with renal failure	fever with haematuria
infection **SR. MILU** **S--** septicaemia R-- Rickettsia M-- Malaria I-- infective edocarditis L-- leptospirosis U--UTI/ pyelonephriti s Hantavirus septicaemia due to pneumonia UTI skin infection /cellulitis meningococcal infection pelvic infection obstetrical **blood** TTP HUS **connective tissue**	**infection** DR. MILU D-- dengue R-- renal TB M-- Malaria I-- infective edocarditis L-- leptospirosis U--UTI/ pyelonephriti s **heamatological** acute leukaemia **connective tissue** SLE Vasculitis – MP , henoch scholein purpura **Renal cell carcinoma**

fever with bleeding	fever with thrombocytopenia / coagulopahty
to remember **MD eat VADKA (rassian wine)** M—severe malaria D—Dengue haemorrhagic fev er V—viral haemorrhagic fever A—acute leukemia D—DIC / septicaemia k—kala—azar A__Aplastic anaemia leptospirosis	to remember **MD eat VADKA (rassian wine)** M—severe malaria D—Dengue haemorrhagic fev er V—viral haemorrhagic fever A—acute leukemia D—DIC / septicaemia k—kala—azar A__Aplastic anaemia leptospirosis meningococcal septicaemia TTP
fever with respiratory distress	**fever with brady cardia**
MP from RASSIA M—severe malaria P—pneumonia R—rheumatic fever A—ARDS S—septicaemia S—SARI/SARS I—infective endocarditis A—Aspiration pneumonia fever with volume over load	enteric fever viral fever (dengue) brucellosis psittacosis weils disease

fever with subcutaneous abscess	fever with pain full nodule
1. meliodosis 2. histoplasmosis 3. myceotoma 4. TB	Lisst—B L-- type II lepra reacation I-- IBD S--Sarcoidos S --SLE T-- primary TB B-- Bechet diseases M—mycoplasma P--Poly-arteritis nodusa S—strepto coccuss
fever with eschar Rickettsia anthrax	
fever with haematomesiss and melena	**fever with red eye**
dengue leptospirosis Rickettsia Malaria Kala-azar leukaemia aplastic anaimia	1. leptospirossi 2. dengue 3. sarcoidosis 4. RA 5. type II lepra reaction



Dr.shamol /history

Cough is a characteristic sound caused by a forced expulsion against an initially closed glottis.

1. **Acute cough ---**lasting less than 3 weeks.

chronic cough-- lasting more than 8 weeks

origin of cough

respiratory causes

1. pharynx,
2. larynx,
3. trachea and
4. bronchi
5. parenchyma

other than respiratory

1. cardiac heart-failure
2. GIT—GERD
3. Drug

Dr.shamol / history

respiratory causes :	non respiratory causes
Pharynx Post-nasal drip **Larynx** Laryngitis **Trachea** Tracheitis **Bronchi** 1. Bronchitis (acute) 2. COPD/ chronic bronchitis 3. Asthma 4. Eosinophilic bronchitis 5. Bronchial carcinoma **Lung-parenchyma** 1. Tuberculosis 2. Pneumonia 3. Bronchiectasis 4. Pulmonary oedema 5. Interstitial lung disease (ILD)	1. heart failure 2. GIT—GERD 3. Drug--ACE 4. neurological disorder

Dr.shamol /history

dry cough –cough without production of sputum 1. asthma / cough variant asthma 2. GERD 3. ILD 4. Drug—ACE inhibitor 5. Eosinophilic bronchitis 6. bovine cough due to –vocal cord palsy / neuromuscular weakness	productive cough **cough with sputum** 1. TB 2. pneumonia (initially dry later productive) 3. bronchiectasis 4. chronic bronchitis / COPD 5. Lung abscess

name some causes of chronic cough **Chronic cough > 8 weeks** 1. Tuberculosis 2. Bronchiectasis 3. Lung tumour 4. Interstitial lung disease 5. chronic bronchitis /copd 6. Asthma 7. GERD 8. drug	**cough with normal X—ray and chest examination** 1. post nasal drip 2. GERD 3. drug 4. cough variant asthma 5. endo-bronchial TB or carcinoma 6. pharyngitis and laryngitis 7. Postviral bronchial hyperreactivity 8. Cigarette smoking

Dr.shamol / history

‘Red flag’ symptoms associated with cough? **WBC--HF** W--Weight loss B--Breathlessness C--Chest pain H--Haemoptysis F--Fever	**common** • **cough more at night** –ashtma • **cough at early morning** → chronic bronchitis • **cough with increase production of sputum with change posture** → bronchiectasis • **cough with foulsmelling sputum** –lung abscess and bronchiectasis , empyema

Name different type of sputum with example?

Type	Appearance	Cause
Serous	Clear, **watery ,Frothy**, pink	Acute pulmonary oedema
Mucoid	Clear ,**White, viscid**	Chronic bronchitis/ COPD Asthma
Purulent	**Yellow** (live neutrophils)	Acute bronchopulmonary infection
	Green (dead neutrophils)	Longer-standing infection Pneumonia Bronchiectasis Lung abscess
Rusty	**Rusty red**	Pneumococcal pneumonia

Dr.shamol /history

SOB



Dr.shamol /history

Breathlessness

Dr shamol/history

1. duration how long

1. onset –sudden / insidiously (sudden –pulmonary edema , pulmonary embolism)
2. progression-- progressive or static(progressive --HF/COPD)
3. in exertional or rest (at rest indicate stage IV/severe dyspnea)

1. aggravating factor
    a. exertion
    b. climbing stair
    c. walking
    d. exposure to pollen /dust / cold weather

1. relieve by
    a. taking rest (heart failure)
    b. inhaler / medication (asthma /copd)
    c. nitroglycerin spray(heart failure)

Dr shamol/history

1. duration how long

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    c. nitroglycerin spray(heart failure)

Dr shamol/history

1. **in case of asthma should take following history**
    a. night disturbance
    b. frequency of use inhaler
    c. any exacerbation needed to hospitalization
    d. history of atopy : skin disease (dermatitis)/ allergic rhinitis

1. **association history**
    a. cough with or without productive sputum
    b. chest pain present or not
    c. joint pain / rash , any connective tissue disease ---ILD

1. **smoker or not –COPD**

Dr shamol/history

exertional breathlessness / heart failure

Just memorize this history..use every where u got breathlessness (heart failure) to describe it like this , or better than this

The presenting complains started one year ago when the patient insidiously developed exertional breathlessness which was progressive. Initially breathlessness appeared during climbing stair (if the patient resides in city) or after walking near about half mile on the level ground and relieved by taking rest (or nitroglycerine spray –if patient tell u). But for the last 15 days it increased in severity. Now he feels breathlessness during walking around house, going to bathroom or simple work like dressing or undressing himself and sometimes even in rest. Patient also give history breathlessness in lying position (orthopnea) and feeling better in sitting position or lying on 2 or 3 pillow under head . He had no history of sudden severe breathlessness that woke him immediately after sleep (PND). This breathlessness had no diurnal variation (or initially breathlessness had no diurnal variation but now a days it more marked at night) or triggering factor like exposure to cold, dust, pollen. He had no history of chest pain, cough, and fever along with breathlessness. (If symptoms are present then elaborate)

Dr shamol/history

bronchial asthma / copd

Just memorize this history..use every where u got breathless (asthma)to describe it like this , or better than this

The presenting complains started one year ago when the patient developed episodic or intermittent breathlessness (or patient also developed episodic / intermittent breathlessness for last one year) .initially it was mild to moderate in severity , triggered or aggravated by exposure to pollen , dust , dander, cold wind and relieved by taking inhaler(or medication) . The symptoms are more marked at night or early morning and also in winter season. For the last 15 days the breathlessness become so severe that he can't speech a whole sentence in single breath. It also hampers his sleep .Now it become refractory or not relieved after taking inhaler. He had no history of breathlessness in lying position.

Dr shamol/history

Define Dyspnoea (breathlessness) ?	
Dyspnoea (breathlessness) is undue awareness of breathing.	
causes	
Acute dyspnoea	Chronic exertional dyspnoea
cardiac	
Acute pulmonary oedema/ALVF	1. Chronic heart failure 2. Myocardial ischaemia (angina equivalent) 3. Constrictive pericarditis 4. Pericardial effusion
lung	
air way	*air way*
Acute severe asthma Acute exacerbation of COPD Inhaled foreign body (children) Laryngeal oedema (e.g. anaphylaxis	1. Chronic asthma 2. COPD 3. Bronchial carcinoma
pleura	pleura
1. Pneumothorax	Large pleural effusion
parenchyma	parenchyma
Pneumonia ARDS Lobar collapse	1. ILD a. sarcoidosis, b. fibrosing alveolitis, c. extrinsic allergic alveolitis, d. pneumoconiosis 2. Lymphatic carcinomatosis

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Causes of dyspnea (continue)	
Acue	**Chronic**
pulmonary vessel	**pulmonary vessel**
Acute Pulmonary embolus	**1. Chronic pulmonary thromboembolism** **2. Primary pulmonary hypertension**
Chest wall	**Chest wall**
XX **1. flail chest / chest injury fracture**	**1. Kyphoscoliosis** **2. Ankylosing spondylitis**
other	**other**
Metabolic acidosis **1. diabetic ketoacidosis,** **2. uraemia** **3. lactic acidosis, ,** **4. salicylates, ethylene glycol poisoning** **neurological / acute neuropathy** **1. Myasthenia gravis** **2. Guillain–Barré syndrome**	**1. Severe anaemia** **2. Obesity** **Neurological** **Neuropathies** **Muscular dystrophies**

breathlessness with chest pain	breathlessness with clear chest
1. acute MI with LVF **2. acute pulmonary embolism** **3. spontaneous pneumothorax** **4. pneumonia** **5. pericarditis and myocarditis** 6. aortic –dissection and aortic aneurysm 7. trauma rib-fracture 8. malignancy 9. Anaemia 10. psychogenic 11. heart failure due to a. IHD b. Aortic stenosis c. HOCOM	**1. metabolic acidosis** a. diabetic ketoacidosis, b. uraemia **2. pulmonary embolism** **3. neurological causes** a. GBS b. Myasthenia gravis 4. anaemia **5. psychogenic** 6. obesity 7. laryngeal edema if question is X—ray normal all + bronchial asthma
post operative breathlessness	**breathless with shock**
1. acute pulmonary embolism 2. acute LVF 3. aspiration pneumonia 4. ARDS 5. metabolic acidosis 6. pneumothorax (positive pressure ventilation)	1. acute LVF with MI 2. acute pulmonary emboliss 3. tension pneumothorax 4. cardiac temponad 5. pneumonia

Breathlessness: modes of onset/ duration and progression	
Minutes	**Hours to days**
Pulmonary thromboembolism Pneumothorax Acute left ventricular failure Asthma Inhaled foreign body	Pneumonia Asthma Exacerbation of COPD
Weeks to months / all chronic exertional cause	**Months to years / chronic exertional cause**
Anaemia Pleural effusion Respiratory neuromuscular disorders Heart failure	COPD Pulmonary fibrosis/ ILD Pulmonary tuberculosis

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New York Heart Association (NYHA) functional classification	
Class I	No limitation during ordinary activity
Class II	Slight limitation during ordinary activity
Class III	Marked limitation of normal activities without Symptoms at rest
Class IV	Unable to undertake physical activity without symptoms; symptoms may be present at rest

only for remember easily

Class I	**No**	limitation --ordinary activity
Class II	**Slight**	limitation--- ordinary activity
Class III	**Marked**	limitation-- ordinary activity
	+	symptom on rest
	no	
Class IV	**unable**	ordinary or (any physical) activity
	+	symptom on rest
	yes	

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(MRC =Medical Research Council)--original

	Grade Degree of breathlessness related to activities
0	No breathlessness, except with strenuous exercise
1	Breathlessness when hurrying on the level or walking up a slight hill
2	Walks slower than contemporaries on level ground Because of breathlessness or has to stop for breath when walking at own pace
3	Stops for breath after walking about 100 m or after a few minutes on level ground
4	Too breathless to leave the house, or breathless when dressing or undressing

(MRC =Medical Research Council)—modified to remember

		Grade Degree of breathlessness related to activities
0	breathlessness on	strenuous exercise
1	breathlessness on	walking hurrying or walking up a slight hill
2	for breathlessness	Walks slower or stop for breath
3	breathlessness on	walking about 100 m or after a few minutes
4	breathlessness on	dressing or undressing or not able to leave the house

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PAIN Abdomen



Abdominal Pain

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S- Site • upper / lower abdomen • localized /diffuse	1. epigastric pain—PUD, acute pancreatitis 2. lower abdominal pain UTI , PID 3. loin pain –pyelonephritis, renal stone 4. right iliac fossa → appendicitis 5. right upper abdomen –liver abscess and acute choecystitis 1. diffuse pain –peritonitis
O--onset • sudden • insidious • intermittent / episodic / recurrent • continuous / persistent / constant • progressively increasing	1. sudden –acute abdomen 2. insidious / gradual –chronic pain 3. intermittent –PUD, chronic pancreatitis
C--character • burning , • dull, • spasmodic / cramping • colic	1. burning is pud 2. spasmodic / colicky /cramping –obstruction ,stone

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R--radiation –present or not • back • shoulder • loin to groin	1. back –pancreatitis 2. right shoulder –acute cholecystitis 3. left shoulder –splenic infarction 4. loin to goin –uteric stone
A--associated • vomiting , fever , • diarrhea or constipation • or alteration of bowel habit	1. vomiting –pud , acute abdomen 2. fever ---infective causes / 3. diarrhea / alteration of bowel habit → TB , IBS,malignancy 4. diarrhea --IBD
T-**Timing and Duration**	when it comes and how long it persist
E-exacerbating relieving factor factors • alcohol , • empty stomach , after meal • relieving factor ○ food , antacid or ○ medication , ○ bending forward	exacerbation factor empty stomach –pud Alcohol/ after fatty meal ---chronic pancreatitis after meal→ pancreatitis , ischaemic pain , IBD relieving factor after food/ antacid ---PUD bending forward –acute pancreatic vomiting ---PUD/ GERD
S--Severity and intensity --mild to moderate or severe	

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Example of abdominal pain :

According to the statement of the patient she was reasonable well 1 month back then she suddenly / gradually (insidiously) developed upper abdominal pain (or diffuse abdominal pain).Which is mild to moderate in intensity, burning /colic / dull in nature (or character) having no radiation (or radiate towards the back) .each attack persist several hours . The pain is aggravated by food / more in empty stomach and relieved by food / antacid / drugs like ranitidine, omeprazole (only mention if patient can tell the name) / bending forward / knee-elbow position / pressing the abdomen with pillow (or the pain has no specific aggravating or reliving factors) . The pain was not associated fever/ vomiting / diarrhea or bloody diarrhea / alteration of bowel habit (or Patient's bowel habit is normal.)

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recurrent upper abdominal pain	Recurrent lower abdominal pain :
from gastro intestinal 1. PUD 2. GERD pancrease 1. Acute /chronic pancreatitis billiary system 1. cholecystitis 2. choledocholithiasis kidney 1. renal colic 2. chronic pyelonephritis less common 1. CA stomach / pancrease referred pain 1. angina other extra intestinal causes 1. see below 2. MBBS ONLY TELL THE BLACK	GIT 1. IBD 2. IBS 3. Ca-colon 4. sub-acute obstruction a. TB b. lymphoma 5. Recurrent appendicitis 6. Diverticulitis 7. ischaemic colitis 8. vasculitis RENAL 1. renal colic 2. UTI in case of female : PID Salphingitis dysmenorrhoea endometriosis

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abdominal pain with normal USG, colonoscopy , CT , endoscopy

GIT

IBS

non ulcer dyspepsia

ischaemic colitis

vasculitis

Non—GIT

L—locomotors

vertebral compression

abdominal muscle stain

M—metabolic

DM/ DKA

Addison

Acute intermittent porphyria

Hypercalcaemia

hyperparathyroid

N—Neurological

Spinal cord lesions

Tabes dorsalis

Radiculopathy/ PLID

Herpes Zoster

post herpetic neuralgia

O-Oral medication

Corticosteroids

Azathioprine

R—Retroperitoneal/ REFERED

MI / IHD

Aortic aneurysm

S

Sickle-cell disease & Haemolytic anaemia

T—Toxic

Lead

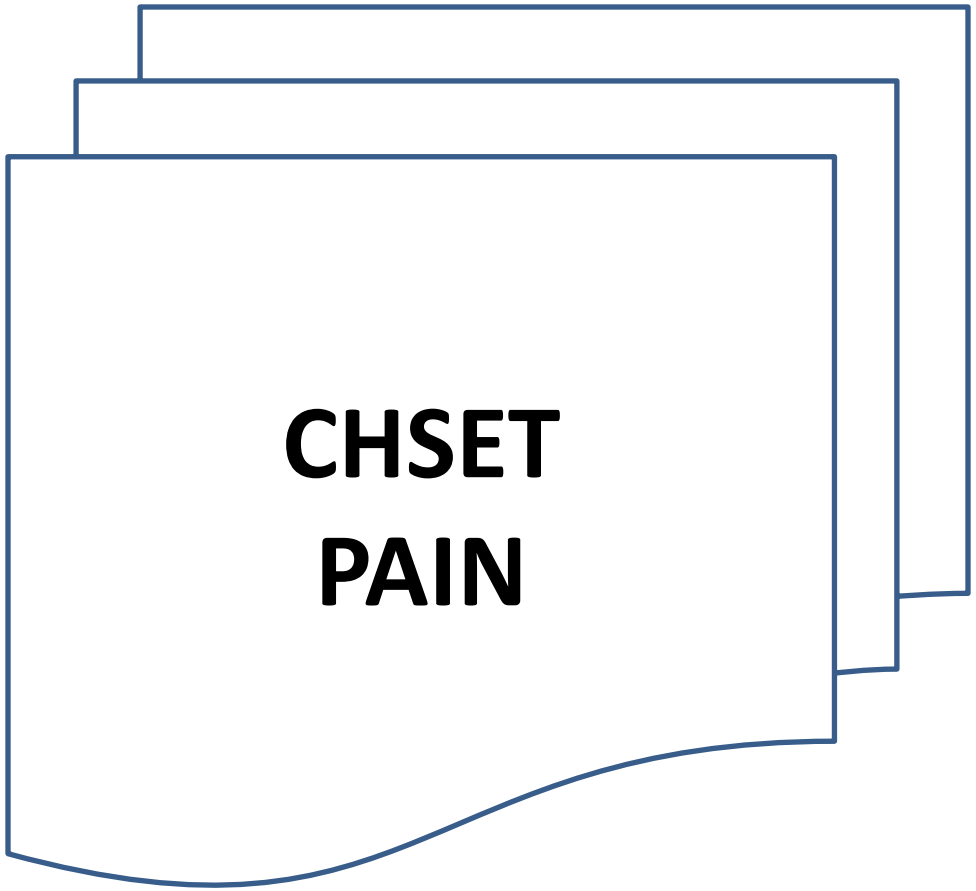
Alcohol

angina or inferion ischemia

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abdominal pain with diarrhea	abdominal pain with bleeding
1. IBS 2. IBD 3. intestinal TB 4. chronic pancreatitis 5. lymphoma 6. giardiasis 7. Addison 8. CA colon 9. ischeamic colitis 10.radiation enteritis	1. IBD 2. ischaemic colitis 3. diverticulitis 4. radiation enteritis 5. Ca rectum 6. bloody diarrhea 7. bloody dysentery (enteromebea histolica) 8. Rectal ulcer

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S- Site 1. central / peripheral 2. right /left sided (if peripheral)	• Central –MI/angina • peripheral pain --pneumonia
O--onset 1. sudden 2. insidious 3. after exercise or walking 4. intermittent / episodic / recurrent 5. continuous / persistent / constant 6. progressively increasing	• sudden --MI • insidious – Angina • after exercise or walking – Angina • rest pain =MI
C--character 1. chocking , compressing , tightening 2. sharp , stabbing 3. tearing	• chocking , compressing , tightening -- MI • sharp , stabbing--pneumonia • tearing ----aortic dissection • burning –GERD
R--radiation –present or not jaw ,neck ,shoulder ,inner surface of left arm and forearm	in MI

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A--associated 1. sweating , vomiting , 2. fever , 3. palpitation 4. breathlessness 5. GIT symptoms	• sweating , vomiting, cold clammy skin--MI • fever , cough ---pneumonia • palpitation –heart causes • breathlessness---cardiac causes • GIT symptoms --GERD
T-Timing and Duration	how long persist
E-exacerbating relieving factor : E-exacerbating factors 1. after exertion , 2. after heavy meal 3. inspiration , 4. movement and cough relieving factor 1. rest , after taking nitrate	E-exacerbating factors • after exertion , after heavy meal—ischamia • deep inspiration , movement and cough –acute pericarditis / pleural pain relieving • rest , after taking nitrate—angina
s-Severity and intensity --mild to moderate / severe	

cardiac or central chest pain
Patient also developed (suddenly / gradually)central chest pain (**left sided**) which is chocking / tightening in nature , mild to moderate in intensity sometimes radiated to inner left arm and forearm . The pain is exacerbated by exertion and relieved by taking rest and sublingual nitrate. The pain has no association with respiration, sweating, nausea, vomiting, fever, palpitation and breathlessness, cough.
peripheral chest pain /non-cardiac test pain
Patient also developed right sided chest pain which is stabbing in nature, mild to moderate in intensity having no radiation but exacerbated by movement, Deep inspiration ,cough and relieved by taking oral medication. it is associated with high grade intermittent fever and episodic dry cough . The pain has no association with palpitation and breathlessness

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central chest pain	peripheral chest pain
Cardiac	**Lungs**
heart	**parenchyma**
1. Myocardial ischaemia(angina)	1. Pneumonia
2. MI	2. Malignancy
3. Pericarditis	3. Tuberculosis
4. Myocarditis	4. Connective tissue disorders
5. Mitral valve prolapse	**pleura**
Aortic	1. Pneumothorax
1. Aortic dissection	**vessel**
2. Aortic aneurysm	1. Pulmonary infarct
Massive pulmonary embolus	**Musculoskeletal--MORIC**
Non-cardiac :	**Skeletal**
Oesophageal	1. O--Osteoarthritis
1. Oesophagitis	2. R--Rib fracture/injury
2. Oesophageal spasm	3. C--Costochondritis (Tietze'ssyndrome)
Mediastinal	**muscle**
1. Tracheitis	1. I--Intercostal muscle injury
2. Malignancy	2. M--Epidemic myalgia (Bornholm disease)
Anxiety/emotional	**Neurological**
	1. P--Prolapsed intervertebral disc
	2. H--Herpes zoster
	3. O--Thoracic outlet syndrome

Difference between MI and angina		
SOCRATES	**MI**	**angina**
site	Retrosternal	SAME
onset	very rapid and sudden	gradual
Character	Constricting, heavy,Tight, squeezing, choking	SAME
Radiation	Jaw/neck/shoulder/arm	SMAE
Associated features	Sweating, nausea, vomiting, breathlessness, feeling of impending death (angor animi)	Breathlessness
Timing	2–10 minutes	Prolonged
Exacerbating/ relieving factors	spontaneous. Not relieved by rest or nitrates	Precipitated by exertion and/or emotion , cold, windy Rest Quick response to nitrates
Severity	very severe	Mild to moderate

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compare chest pain						
	Angina	Myocardial infarction	Aortic dissection	Pericardial pain	Oesophageal pain	pleural pain
site	Retrosternal /	Retrosternal	Interscapular	Retrosternal left-sided	Retrosternal or epigastric	peripheral
onset	gradual over 1–2 minutes	Rapid	Very sudden	Gradual, postural change may suddenly aggravate	gradual sudden if (spasm)	gradual /slow
Character	Constricting, heavy	Constricting, heavy	Tearing or ripping,	Sharp, 'stabbing' pleuritic	Gripping, tight or burning	Sharp, 'stabbing' pleuritic
Radiation	Jaw/neck/ shoulder/arm	Jaw/neck/ shoulder/arm	Back, between shoulders	Left shoulder or back	Often to back, sometimes to arms	non radiation
Associated features	breathlessness	Sweating, nausea, vomiting, breathlessness, feeling of impending death	Sweating, syncope,focal neurological signs, loss of pulse	Flu-like prodrome, breathlessness, fever	Heartburn, acid reflux	fever ,cough
Timing	2–10 minutes	Prolonged	Prolonged	variable duration	Nighttime common, variable duration	variable
Exacerbating	Precipitated by exertion and/ or emotion , cold, windy	spontaneous.	Spontaneous	Pleuritic Sitting up/lying down may affect intensity	Lying flat some foods may trigger	cough , deep inspiration
relieving factors	Rest Quick response to nitrates	Not relieved by rest or nitrates	No manoeuvres relieve pain	NSAIDs may help	Not relieved by rest; nitrates sometimes relieve	NASIDs
Severity	Mild to moderate	Usually severe	Very severe	Can be severe	Usually mild	mild to moderate

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Haemoptysis ?

Coughing up blood is called Haemoptysis .

cause according to anatomy

Bronchial disease

1. A--Acute bronchitis*
2. B—Bronchiectasis
3. C- Carcinoma (bronchial CA / adenoma)

Lung vascular disease

1. Pulmonary infarction*
2. Goodpasture's syndrome
3. vasculitis
   a. Polyarteritis nodosa
   b. wegner granulomatosis
4. Arteriovenous malformation

Blood disorders

Blood dyscrasias

1. Leukaemia
2. Haemophilia
3. Anticoagulants

Parenchymal disease

MALT

1. Tuberculosis
2. Suppurative pneumonia
3. Lung abscess
4. Mycetoma
5. Actinomycosis
6. hydatid disease

Cardiovascular disease

1. Acute left ventricular failure /pulmonary edema
2. Mitral stenosis

Iatrogenic

1. biopsy

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haemoptysis with normal chest XRY ?	massive haemoptysis /frank haemoptysis
Bronchial disease 1. A--Acute bronchitis* 2. B—Dry Bronchiectasis 3. C- Carcinoma (endobronchial tumour/ TB) **Lung vascular disease** 1. Pulmonary infarction* 2. Goodpasture's syndrome 3. vasculitis a. Polyarteritis nodosa b. wegner granulomatosis 4. Arteriovenous malformation **Blood dyscrasias** 1. Haemophilia 2. Anticoagulants	to **ABC--MT** A--lung abscess B--Bronchiectasis C—cancer—bronchial carcinoma M--intracavitary mycetoma T—tuberculosis **recurrent haemoptysis** **Bronchial disease** Bronchiectasis Carcinoma (bronchial CA / adenoma) **Parenchymal disease** **Lung vascular disease** **Blood dyscrasias**

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Diarrhea



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Approach to patient with diarrhea

duration/ how long	acute –infective
	chronic—mal-absorption , TB, IBS, IBD
frequency per day volume ,	large volume , less frequent , watery →small intestine
	small volume , frequent , watery → large intestine origin
stool character	watery
	semisolid
	contain undigested food particle—mal-absorption
	feature steatorrhoea → present or not • bulky / voluminous • pale , offensive , frothy / greasy • float on water and difficult to flash out

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abdominal bloating	mal-absorption
pain `	pain less—mal-absorption
	pain full—IBS , IBD, chronic pancreatitis , intestinal TB
	cramping mid abdomen---small intestine origin
	cramping lower abdomen → large intestine o
	recurrent upper abdominal pain radiate to back and relieve / bending forward / knee-elbow position / pressing the abdomen with pillow—chronic pancreatitis
	Pain relieved after defecation--IBS

appetite	normal or increase –mal-absorption, thrytoxicosis
	decrease --TB
blood and mucous	IBD (ulcerative colitis), Ca colon

relation with food	increased after taking , fat , milk ,sugar or gluten diet –mal-absorption & IBS
	improved on fasting -- mal-absorption

tenesmus	it painful urge to evacuate bowel with no or little stool pass IBD and rectal malignancy
alteration of bowel habit	which one is predominant (diarrhea , constipation) IBS, TB , Malignancy
melena –black tarry stool	malignancy ,
fever anorexia , weight loss night sweat	abdominal TB Lymphoma

weight normal	–IBS
no night symptoms / no sleep disturb	
red eye (uvitis) joint pain oral ulcer	IBD
skin lesion /rash	IBD ,ceoliac disease
endocrine history	does the pt have DM
	thyrotoxicosis –wt loss , tremor , sweaty hand and palpitation , goiter , diahorrhea
	Addison –increase pigmentation , dizziness , wt loss

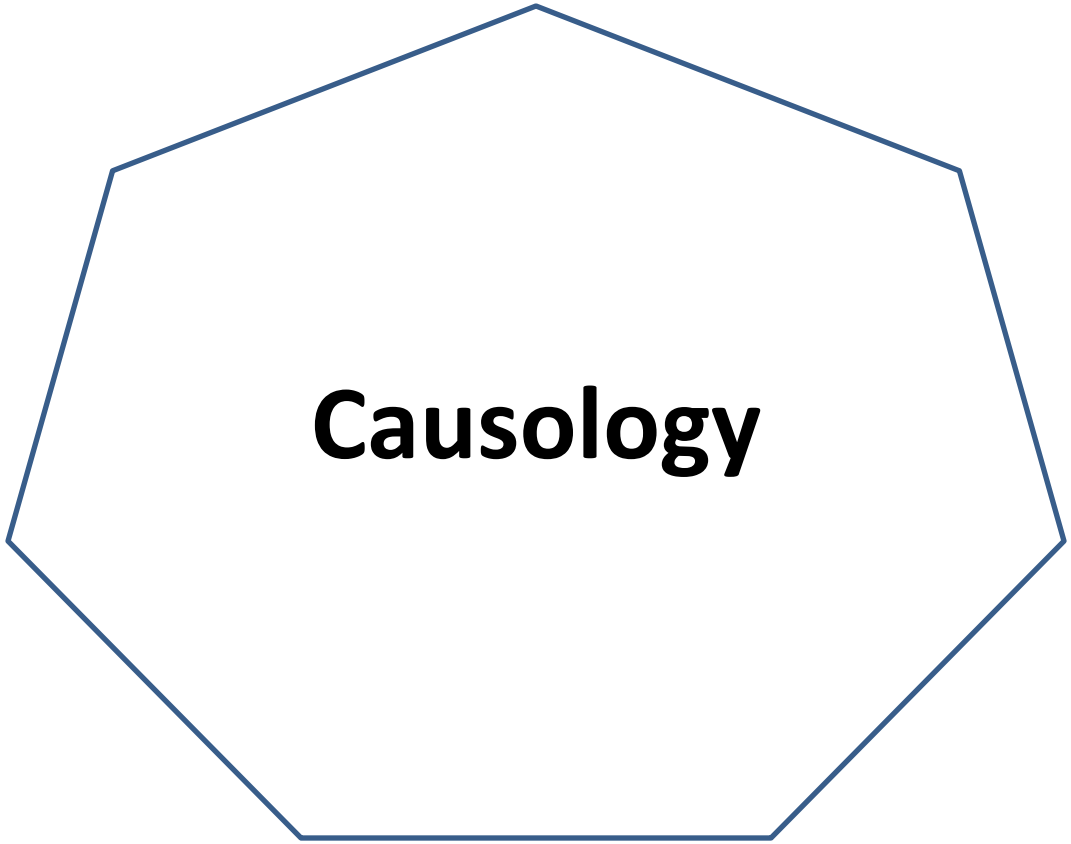
drug history	NASID , PPI, antibiotic
flushing , wheeze , small bowel obstruction	carcinoid
if u think it is **mal-aborpstion** take HO complication	a) HO or feature of b) night blindness c) parasthesia , tetany d) bone pain → osteomalacia e) neuropathy f) proximal Myopthy g) edema

Prototype
History regarding diarrhea

Watery diarrhea/ malabsorption
According to the statement of the patient the patient was reasonable well 2 months back then she developed loose motion about 4 to 5 times per day which was moderate in volume and watery in nature, most of the time containing undigested food particle (**or developed loose watery stool about 4 to 5 times per day moderate in volume and containing undigested food particles**). This loose motion aggravates after taking fat/sugar/milk / carbohydrate meal and improves on fasting. (**Or it has not any relation with specific dietary habit**). The stool is not mixed with blood, mucous or no history of black tarry stool or sense of incomplete evacuation (tenesmus),abdominal pain and vomiting (**or but associated with recurrent colicky mid abdominal pain / discomfort that aggravates after meal and relieves after defecation without radiation**). His appetite was normal despite of losing 5 kg (**or one tenth of his body weight**). The patient has no history of red eye , oral ulcer, joint pain , skin lesion and painful red eye (uvitis) . He has no history fever, weight loss (**not mention if mention previously**), night sweat (tb). The patient have no history tremor, sweaty hand and palpition , goiter **(thyrotoxicosis),** increase pigmentation , dizziness **(addision**)

Alteration of bowel habit
His bowel habits recently changed into constipation and have to pass hard lumpy stool sometimes associated manipulation two or three times/ week The patient also gives history of alteration of bowel habit for same duration with predominant loose stool about 2 to three times per day without passage of blood, mucous, melena

Steatorrhoea
According to the statement of the patient the patient was reasonable well 2 months back then she developed loose motion about 4 to 5 times per day which was bulky / voluminous ,pale foul-smelling , frothy , greasy float on toilet and difficult to flash out . The stool containing undigested food particle Now added previous HO


Causology

Most common causes of Chronic (>4 weeks) or recurrent diarrhea

Inflammatory bowel disease

1. Irritable bowel syndrome
2. Tuberculosis
3. Chronic pancreatitis
4. Giardiasis and amoebiasis .
5. Mal-Absorption syndrome
6. HIV
7. Autonomic neuropathy(diabetic)
8. Hyperthyroidism
9. drug-induced
    1. Laxative abuse
    2. NSAIDs

Chronic (>4 weeks) or recurrent diarrhea

Colon

1. Inflammatory bowel disease
2. Irritable bowel syndrome
3. Microscopic colitis
4. Ca colon
5. Ischaemia colitis

Small intestine

1. Carcinoid tumour
2. VIPoma
3. Drug-induced
   a. NSAIDs
   b. Aminosalicylates
   c. Selective serotonin re-uptake inhibitors (SSRIs)
   d. Laxative abuse

endocrine

1. Autonomic neuropathy(diabetic)
2. Hyperthyroidism
3. Addison

Malabsoprtion

1. Pancreatic
   a. Chronic pancreatitis
   b. Cancer of pancreas
   c. Cystic fibrosis

2. Enteropathy
   a. Coeliac disease
   b. Tropical sprue
   c. Lymphoma
   d. Lymphangiectasia

3. small intestine
   a. Small bowel bacterial overgrowth
   b. Whipple's disease
   c. lactose in tolerance
   d. Small-bowel or right colonic resection

4. infection
   a. Parasitic infestations, e.g.
      i. Giardia lamblia
      ii. amoebiasis,
      iii. Cryptosporidium spp.
   b. tuberculosis

causes of bloody diarrhoea	
NON infective DR. MARIA vabi	**infective**
D— Diverticulitis **R—** radiation enteritis **M**— malignancy –colorectal carcinoma **A**— angiodysplasia **R**— rectal varice **I**— IBD ischaemic colitis **A**-- aorto-colic fistula **Vabi**– vasculitis (H.S. purpura)	**dysentry** 1. bacterial a. shegelosis b. salmonella 2. ameba a. enteromaebia hysotlitica

abdominal pain with diarrhea	**abdominal pain with bleeding**
1. IBS 2. IBD 3. intestinal TB 4. chronic pancreatitis 5. lymphoma 6. giardiasis 7. Addison 8. CA colon 9. ischeamic colitis 10. radiation enteritis	1. IBD 2. ischaemic colitis 3. diverticulitis 4. radiation enteritis 5. Ca rectum 6. bloody diarrhea 7. bloody dysentery (enteromebea histolitica) 8. Rectal ulcer

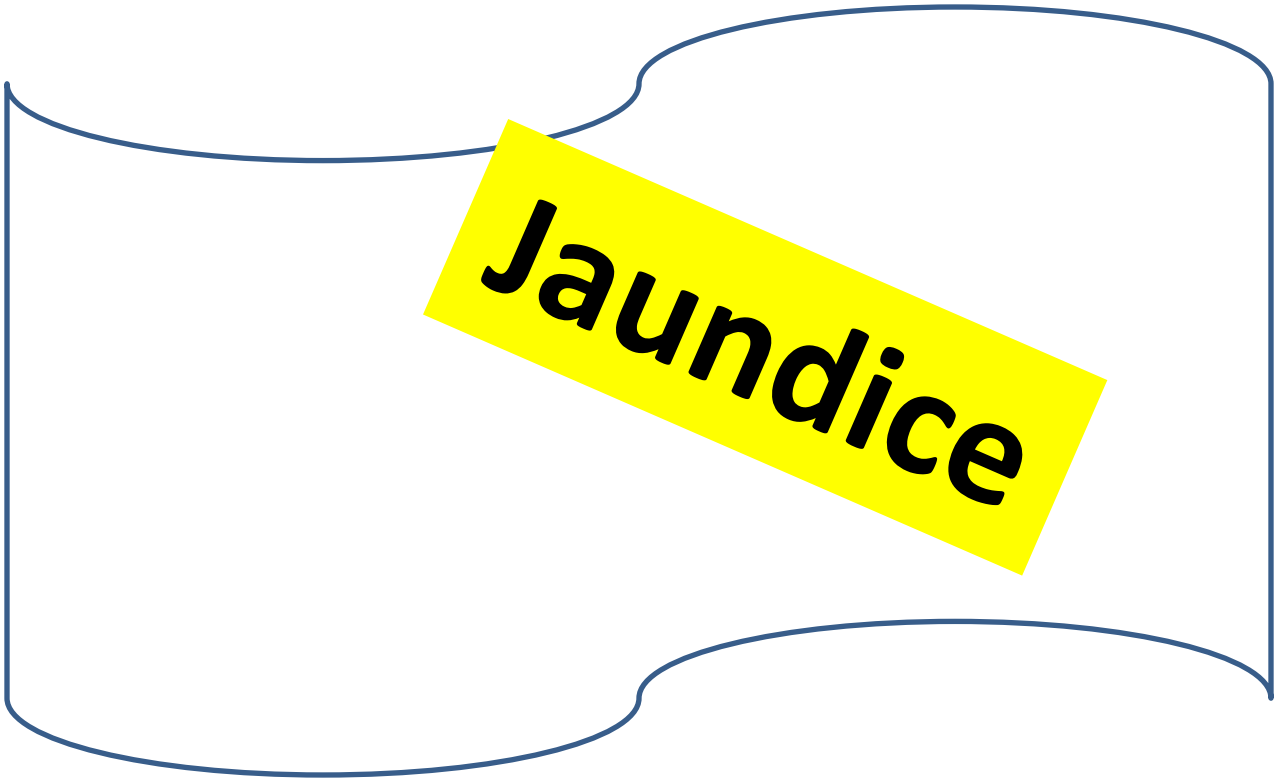
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abdominal pain with diarrhea	**abdominal pain with bleeding**
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Diarrhea with rash	**diarrhea with weight loss**
1. IBD 2. Dermatitis hepertiformis 3. Scleroderma 4. Vasculitis 5. Heonoch scheolein purpura 6. SLE 7. Drug 8. HIV	1. intestinal TB 2. chronic pancreatitis 3. diabetes 4. hyperthyroidism 5. Addison 6. HIV enteropahty 7. malignancy 8. malabsorption

Jaundice





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duration	
which part involved in sequence	first sclera → urine and the whole body
HO- viral prodome	anorexia , nausea , vomiting , joint pain , malaise
fever	simple fever + prodome → viral hepatitis fever with chill and rigor → cholangitis fever + jaundice → viral hepatitis ,leptospirosis , malaria , liver abscess , cholangitis
the jaundice progressive , static , fluctuating	progressive→ malignancy (Ca-pancreas) static → viral hepatitis fluctuating—stone recurrent –stone / Wilson/ haemolytic anaemia
stool pale or not	obstructive jaundice
itching / dark color urine	

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Ho bleeding manifestation (epistaxis , purpura, gumbleeding)	obstructive jaundice—due to ViT –K deficiency
abdominal pain	viral hepatitis /stone
HO for etiology **Dr shamol /history**	✓HO Alcohol, IV drug , Blood transfusion , saving in salon extramarital sexual exposure , tattoos –B virus ✓water and sanitation –for A and E virus ✓drug History –anti-TB drug ✓Family history → other siblings –wilson and haemolytic anaemia ✓Ho recurrent blood transfusion + anaemia –thalasemia ✓travel history to abroad

unconsciousness	encephalopathy
stigmata of CLD	✓ immunization ✓ loss body hair decrease saving frequency , edema , ascites , loss of libido
Bowel habit	if constipation chance of encephalopathy steatorrhoea –in case of obstructive jaundice

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A=Anorexia , ALCOHOL
B=Bleeding manifestation , blood transfusion
C=Color of stool (pale)/ urine (dark)
D=Drugs (herbal drug), drinking water and sanitation
E= Exposure –extramarital sexual exposure
F=Fever
G=GIT—nausea , vomiting , abdominal pain
H=Ho—previous jaundice , family HO , HO of consanguinity
I=Itching , IV drug
J=Joint pain
L=Loss of body hair , libido --CLD

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hepatitis:

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If viral hepatitis:

According to the statement of the patient he was reasonable well one month back. Then he noticed yellow coloration of sclera, skin and urine which was associated with (preceded by) anorexia/ loss of appetite, nausea, malaise, joint pain. This yellow coloration was progressively increasing and not associated with fever, abdominal pain, itching, pale color stool and any bleeding manifestation**.((((if patient complained pain then write this line ---The patient also complained right upper abdominal pain Which was mild to moderate in intensity dull aching in nature (or character) having no radiation. The pain had no specific aggravating or reliving factors**.)))) .he used to save in the salon but unaware of using disposable razor. The patient had no history loss consciousness, pubic or axilary hair loss ,blood transfusion. His bladder and bowel habit is normal and libido is intact

Dr shamol /history

He is non-alcoholic, non smoker, no history of IV drug abuse

He has two brothers and three sisters. None of his siblings are suffering this type of disease. His parent has not consanguinity.

He drinks arsenic free tube-well water and use sanitary latrine

obstructive jaundice

Dr shamol /history

If obstructive jaundice:

According to the statement of the patient he was reasonable well one month back. Then he noticed yellow coloration of sclera, skin and urine which was progressively increasing. This yellow coloration was associated with generalized itching and pale stool. The patient also complained right upper abdominal pain which was mild to moderate in intensity, colicky in nature (or character) having no radiation. The pain had no specific aggravating or reliving factors. He had no history of nausea, vomiting, malaise, joint pain, fever and any bleeding manifestation. He used to save in the salon but unaware of using disposable razor. The patient had no history loss consciousness, alteration of behavior, blood transfusion. His appetite, bladder and bowel habit is normal and libido is intact.

He is non-alcoholic, non smoker, no history of IV drug abuse , no HO history extra-marital sexual exposure

Dr shamol /history

He has two brothers and three sisters. None of his siblings are suffering this type of disease. His parent has not consanguinity.

He drinks arsenic free tube-well water and use sanitary latrine

Classify jaundice?	
Prehepatic or Haemolytic jaundice Hepatocellular Post Hepatic or Obstructive jaundice	
haemolytic jaundice	**hepatocellular jaundice**
➢ Haemolysis.—thalassamia , autoimmune haemolytic anaemia ➢ Falciparam malaria ➢ Gilbert's disease. ➢ Dubin-Johnson syndrome. ➢ Rotor syndrome	➢ Acute viral hepatitis, ➢ Alcoholic, ➢ Autoimmune, ➢ Drug-induced—anti-tubercular drugs ➢ Cirrhosis

Dr shamol /history

Post Hepatic or Obstructive jaundice

Intrahepatic	Extrahepatic
1. Primary biliary cirrhosis 2. Primary sclerosing cholangitis 3. Alcohol 4. Drugs 5. Hepatic infiltrations a. lymphoma, b. granuloma, c. amyloid, d. metastases 6. Cystic fibrosis 7. Severe bacterial infections 8. Pregnancy 9. Inherited cholestatic liverdisease, e.g. benignrecurrent intrahepatic cholestasis 10. Chronic right heart failure	1. Carcinoma a. Ampullary b. Pancreatic c. Bile duct(cholangiocarcinoma) d. Liver metastases 2. Choledocholithiasis 3. Parasitic infection (worm) 4. Traumatic biliary strictures 5. Chronic pancreatitis

Dr shamol /history

causes of recurrent jaundice	cause of prolong Jaundice not for MBBS
CONGENITAL 1. Gilbert 2. Wilson HEAMATOLOGICAL 1. hameolytic anaemia a. thalassaemia b. auto-immune-haemolytic anemia HEPATIC 1. Auto-immune hepatitis 2. primary sclerosis cholangitis 3. CLD / chronic active hepatitis billiary duct and pancrease 1. choledocolithiasis 2. recurrent cholangitis 3. choledochal cyst 4. recurrent pancreatitis Dr shamol /history	CONGENITAL 1. Gilbert 2. Wilson HEAMATOLOGICAL 1. hameolytic anaemia a. thalassaemia HEPATIC 1. Auto-immune hepatitis 2. Alcoholic hepatitis 3. chronic active hepatitis / cirrhosis 4. Carcinoma of liver primary or 2ndary billiary duct and pancrease 1. primary sclerosis cholangitis 2. Primary billiary cirrhosis 3. Extraheaptic billiary obstruction a) choledochal cyst / helminthes b) cholangiocarcinoma c) stricture d) impacted gall stone 1. carcinoma of head of pancrease

common causes

bile duct

a) choledocholithiasis
b) cholangitis
c) Choledochal cyst

liver

a) viral hepatitis
b) hepatocellular carcinoma / hepatoma on the top of CLD
c) liver abscess

other than hepato-biliary

a) pancreatitis
b) lymphoma with protahepatic obstruction

uncommon

a) PSC
b) SBP with CLD

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biliary causes

A. intraluminal obstruction

1. cholangiocarcinoma
2. impacted stone in bile duct
3. Primary biliary cirrhosis
4. Primary sclerosing cholangitis

B. Extra luminal obstruction

1. in porta-hepatis by lymphoma
2. Carcinoma of head of pancreases

C. liver causes

1. decompnesated CLD
2. hepatocellular carcinoma a

Fluctuating

1. Choledocholithiasis
2. Stricture
3. Choledochal cyst
4. Primary sclerosing cholangitis
5. Pancreatitis

abdominal mass and jaundice	lymphadenopathy with jaundice
billiary and pancreases 1. Carcinoma a. Of head pancreases b. Cholangiocarcinoma 2. Pancreatitis (cyst) 3. Choledochal cyst **hepatic** 1. hepatolcellular carcinoma with /out CLD 2. secondaries in the liver 3. liver abscess **other than hepato-billiary** 1. lymphoma	**liver** 1. autoimmune hepatitis **malignancy** 1. haematological a. lukaemia (ALL, CLL) b. Lymphoma 2. other a. disseminated malignancy **infection** 1. disseminated TB 2. infectious mononucleosis **Dr shamol /history**

jaundice with hepatomegaly	**jaundice with hepatosplenomegaly**
1. viral hepatitis **2. cirrhosis** a. haemochromatosis b. Alcoholic **3. Carcinoma** a. HCC with / out—CLD b. secondary's in the liver **4. infection** a. liverabscess b. disseminated TB (granulomatous hepatitis **)**	**hepatic** 1. Decompensate CLD with portal hypertension 2. Hepatoma on the Top of CLD **hematological** 1. hameolytic anaemia 2. lymphoma 3. CLL **infective** 1. disseminated TB 2. Kala-azar **Dr shamol /history**

fever with jaundice	jaundice with fatigue
hepatic	1. Auto-immuno hepatitis 2. PBS 3. psc
	jaundice with arthritis
infective **acute :** Mbbs only white Color 3. septicaemia 4. dengue **chronic** 1. Kala-azar and 2. disseminated TB **others** 1. lymphoma	*1. Viral hepatitis* *2. autoimmune hepatitis* *3. haemochromatosis* *4. lymphoma* *5. PBC* *6. SLE and vasculitis* **7. Drug reaction** **8. haemolytic anaemia with pseudo gout** **Dr shamol /history**

jaundice with pregnancy

not related with pregnancy

1. viral hepatitis
2. drug
3. cirrhosis
4. auto-immuno hepatitis
5. Wilson

related with pregnancy

1. intrahepatic cholestatic of pregnancy
2. acute fatty liver of pregnancy
3. HELLP

Dr shamol /history

Edema



1. type of swell generalized or localized	generalized → CLD , NS, CCF localized –>if only ascites ---CLD, intestinal TB, lymphoma, intra-abdominal Malignancy with metastases to peritonium →if only pedal edema → mal-absorption , drug –NSAID, Ca channel blocker , malnutrition ,early NS , Heart failure
1. if generalized which part first involved	✓ first periorbital region then generalized -→ ns/ AGN ✓ first lower limb then generalized →CCF ✓ first abdomen then generalized → CLD

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now take history for etiology

if your diagnosis is regarding renal origin

onset	sudden –AGN ,
	insidious or gradual ---NS
urinary output	✓oligouria –scanty , dark color / coacola color urine in case of AGN
	✓Normal volume &frothy– in NS but in later stage may be scanty.
HO etiology for AGN	✓history skin infection , itching , boil
	✓sore throat and ear infection or
	✓any other infections prior to onset of this swelling

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NS: history for etiology /secondary causes	DM--polyuria and polydipsia
	SLE/ connective tissue diseases/ vasculitis : joint swelling and pain ,rash(purpura, malar rash), oral ulcer , alopecia
	Drug history → taking pain killer (NSAID), anti-hypertensive drug –captopril (ACE inhibitor),herbal drug , pencillamine gold (not use now day so don't tell first)
	History of jaundice (HBV,HCV)
	History of infection –Malaria
	History malignancy –lymphoma –fever + lymphadenopathy (nodular swelling)

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complication of AGN	✓HTN encephalopathy → head ache and blurring vision, convulsion and unconsciousness
	✓LVF→ orthropnea , sudden severe dyspnea
Complication of NS	✓Recurrent infection –fever
	✓Thrombo-embolism (loin pain –renal vein thrombosis)

in case nephrotic syndrome treatment history likes	previous HO edema (relapse)—how many times and what was the treatment
	Drug history (steroid /how many times)
	History renal biopsy
to exclude CCF	➢ breathlessness present or not

If the patient have CCF Take following HO	if breathlessness present then exertional or rest
	orhtropnea –(dyspnea in lying posture)
	paroxysmal nocturnal dysnpnea -→ sudden severe breasthlessness that awake him from sleep
	cough / frothy sputum with /without heamoptysis
	palpitation
	chest pain
	anaemic heart failure –Ho –chronic blood loss fatigue , weakness , dizziness
	child hood joint pain –rheumatic diseases
	alcohol –alcoholic heart disease
	if female –recent pregnancy to exclude post partum DCM

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HO jaundice	present now or previously
if jaundice present now take	detailed history of jaundice (see jaundice topic) important history like → viral prodrome -- , anorexia / loss of appetite , vomiting, nausea itching + pale color stool –obstructive jaundice
HO hepatic insufficiency	loss of body hair , decrease frequency of saving , decrease libido, amenorrhoea
HO jaundice	present now or previously

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HO complication	haematemesis →vomiting out of blood
	melena→ black tarry offensive and sticky stool that stained reddish after washing (rupture esophageal varices) ,
	fever and abdominal pain(SBP),
	Recent and past HO alter level of consciousness , alter behavior and alteration of sleep pattern(encephalopathy
	urine output (hepato renal)
	Bowel moves per day (as constipation is risk for hepatic encephalopathy)
etiology :	previous HO jaundice (viral hepatitis)
	H/O transfusion of blood and blood product (HBV)
	shaving in salon & using of disposable blade or not (HBV)
	abdominal surgery previously (biliary cirrhosis)
	autoimmune disease , arthritis ,women (autoimmune hepatitis)

personal history	Alcoholic. IV drug user, multiple extra marital sexual exposure family history
	HO recurrent jaundice in other siblings (willson)
	patient's partner is suffering from jaundice or not
immunization HO	immunized against HBV or not
special attention if the patient is young then take HO to exclude the **Wilson**	HO of recurrent jaundice
	other family member (siblings)
	dementia –poor school performance / academic performance
DR SHAMOL /EDEMA	neurological feature –involuntary movement (tremor , chorea)

if patient have ascites take this HO to exclude TB and lymphoma	fever and abdominal pain night sweat , weight loss
	remember that fever and abdominal can occur also in CLD with HCC
in all case following history of rare cause	
bowel history	alteration bowel habit –intra-abdominal malignancy chronic diarrhea or mal-absroption
drug history	NSAID , calcium channel blower , OCP
hypothyroidism	Weight gain, cold intolerance, constipation, fatigue and lethargy, menorrhgia.
Aspiration of fluid	if yes than color red—malignancy straw –TB , serous /clear -→ CLD turbid –bacterial infection

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NS

key point –insidiously

According to the statement of the patient, he was reasonable well 25 days ago then He Insidiously developed generalized body swelling .initially he noticed swelling or puffiness at face specially around the eye lids then it involved both legs and subsequently it become generalized. At the beginning of the swelling urine output was normal and frothy but for the last 5 days he noticed reduction in both urinary volume and frequency.

There is no history of sore throat or skin infection prior to this illness .He denies (or he does not give) any history of fever ,chest pain, breathlessness , palpitation , joint pain and swelling , skin rash , alteration bowel habit (in form of loose motion) , vomiting out of blood and passes of black tarry stool during the course of illness(only mention if edema is associated with ascites) . He also denied any recent or past history of jaundice and similar type of swelling .

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The patient has no HO HTN and diabetic. The patient has no history taking pain killer and anti hypertensive drug. After admission in hospital he getting some injectable and oral drug but name of which he could not be mentioned

AGN

key point –suddenly

According to the statement of the patient, he was reasonable well 5 days ago then He suddenly developed generalized body swelling .initially he noticed swelling or puffiness at face specially around the eye lids then it involved both legs and subsequently it become generalized . He also developed scanty micturation (or voiding) and high color urine for same duration. There is a history of sore throat (or skin infection) 2 wks prior to this illness. The patient also complaint of mild head ache and blurring of vision for the last few days (mention if only pt told u – as feature severe hypertension) .He denies (or he does not give) any history of fever ,chest pain, breathlessness , palpitation , joint pain and swelling , skin rash , convulsion, unconsciousness ,alteration bowel habit (in form of loose motion) , vomiting out of blood and passes of black tarry stool (only mention if edema is associated with ascites) during the courses of illness. He also denied any recent or past history of jaundice and similar type of swelling previously

CLD/ ascites

According to the statement of patient he was relatively well 6 months ago then he gradually developed generalized swelling of whole body which first noticed at abdomen subsequently become generalized

He denies (or he does not give) any history of fever, abdominal pain, night sweats, chest pain, breathlessness, palpitation, alternation bowel habit and passage of mucus with or without blood.

The patient had history of jaundice 4 yrs ago which subsided spontaneously (only tell if pt give the history) The patient used to shave in salon and was unaware about using of disposable blade every time .but He denies any history of transfusion of blood and blood product, abdominal surgery, vomiting out of blood and Passage black tarry tool, bleeding manifestation from other side of body, unconsciousness and alteration of sleep pattern.

His urinary output is normal and bowel moves once daily. For the last few months he noticed that he gradually losing his body and pubic hair and decreased frequency of saving and loss of libido. He also gave history aspiration of fluid from his abdomen twice after admission in medicine unit and color of the fluid was clear

PERSONAL HISTORY

DR SHAMOL /EDEMA

The patient is Non smoker, Non alcoholic. And have no history IV drug user. The patient had history multiple extra marital sexual exposure

CLD

ASCITES

CCF

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Ascites with TB or malignancy

key : ascites plus History of ---fever , weight loss with (+/-) diarrhea or abdominal pain

According to the statement of patient he was relatively well 6 months ago then he gradually developed swelling of whole body which first noticed at abdomen subsequently become generalized .

This swelling was associated with fever. Which was low grade intermittent in nature The temperature raised mostly at the evening and used to persist 4 to 6 hrs and subsided with sweating with or (without) medication. Highest recorded temperature was 101^0F.

He denies any recent and past history of jaundice, abdominal pain (if present then elaborate it), chest pain, palpitation, joint pain and swelling, skin rash, alternation bowel habit (in form of loose motion) and passage of mucus with or without blood (if give history of diarrhea –then elaborate it also),He also denies vomiting out of blood and black tarry stool, bleeding manifestation from other side of body during the courses of illness. He also denies axillary and pubic hair loss and his saving frequency is normal .his urinary output is normal .But he complained of fatigue and anorexia to all kinds of food,

He loses 10 kg weight during the course of illness. He had no history of contact with TB patient. He also gave history aspiration of fluid from his abdomen twice after admission in medicine unit and which was straw in color

PERSONAL HISTORY

DR SHAMOL /EDEMA

The patient is Non smoker, Non alcoholic. And have no history IV drug user. The patient had not history of extra marital sexual exposure

CCF-- Key point – breathlessness plus edema

First take history breathlessness ---see under dyspnea / breathlessness
the patient also give history of generalized body swelling for 2moths .initially he noticed swelling in both leg then it involved abdomen and subsequently it become generalized. The patient also developed episodic productive cough for same duration containing scanty frothy sputum having no diurnal variation or seasonal variation and no history of coughing out of blood.
His bowel & bladder habit is normal.
He denies any recent and past history of jaundice, chest pain (if present then elaborate it), palpitation, fever , night sweat and weight loss , joint pain and swelling, skin rash, vomiting out of blood and black tarry stool, bleeding manifestation from other side of body during the courses of illness. He also denies axillary and pubic hair loss and his saving frequency is normal .But he complained of fatigue and anorexia to all kinds of food. He had no history of contact with TB patient
PERSONAL HISTORY

DR SHAMOL /EDEMA

The patient is Non smoker, Non alcoholic. And have no history IV drug user.
The patient had not history extra marital sexual exposure

Nephritic syndrome	Nephrotic syndrome
Haematuria (red or brown urine) Oedema Oliguria Hypertension	massive Overt proteinuria usually >3.5 g/24 hrs Oedema Hypoalbuminaemia < 30 g/L hypercholesterolemia

difference between nephrotic syndrome and AGN

	AGN	nephrotic syndrome
onset	sudden	insidious
HO	sore throat skin infection	not so in adult HO 2ndary cause e.g. DM
urine color	red / dark /cocacola color	frothy , smoky
HTN	present	absent
edema	mild to moderate	massive
oligouria	present	may present at late stage
urine RME	RBC and RBC cast protein uria + to ++	no RBC or RBC cast protein uria ++++

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AGN—causes	NS—causes
1st say 1. post streptococcal glomerulonephritis if sir want to more than say 1. connective tissue disease a. SLE 2. vasculitis 3. Henoch scholein purpura other infection other bacterial infection 1. infective endocarditis 2. meningo coccal infection 3. pneumococcal infection 4. plasmodium malarae 5. viral hepatitis	primary causes 1st say 1 and 2 if want more than 3,4,5 FM3 M—minimal change (in child) M—membranous GN (in adult) M—mesangio-capillary GN F—Focal and segmental glomerulosclerosing I—IgA nephropathy secondary causes CID C—collagen disease –SLE , RA C—Carcinoma –bronchial , non-Hodgkin lymphoma I—infection 1. HBV,HCV, HIV 2. plasmodium malarae 3. secondary syphilis 4. leprosy (type II lepra reaction) 5. bacterial endocarditis D—DM D—drug –pencillamine , captopril (ACE), gold, NSAID

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Abnormal accumulation fluid in interstitial space is called oedema.

Unilateral	Bilateral
1. Lymphoedema a. filariasis b. lymphatic obstruction due to malignancy , radiation , surgery 2. Deep vein thrombosis 3. cellulites 4. Chronic venous insufficiency 5. Immobility, e.g. hemiplegia	1. Heart failure 2. cirrhosis 3. Hypoproteinaemia a. nephrotic syndrome, b. kwashiorkor / mal-nutrion c. mal-absorption 4. Chronic venous insufficiency 5. Inferior vena caval obstruction 6. Drugs, e.g. NSAIDs, nifedipine, amlodipine, fludrocortisones 7. Thiamine (vitamin B1) deficiency (wet beriberi) 8. Milroy's disease (unexplained lymphoedema which appears at puberty; more common in females)

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define oedema

oedema is an abnormal accumulation of fluid in the interstitium or in one or more cavities of the body

classification with example

according to distribution

- ✓ **generalized and localized**

according to depress on pressure

- ✓ **pitting and nonpitting edema**

generalized edema

- **heart causes –CCF**
- **liver causes –CLD**
- **renal cause -- nephrotic syndrome**
- **other causes**
  - **mal absorption / malnutrition**
  - **protein-losing enteropathy**
  - **pregnancy**
  - **drug**

localized

lymphatic obstruction/ lymphoedema

- **Filariasis**

Venous causes

- **Deep venous thrombosis or chronic venous insufficiency**

Inflammatory causes.

Allergic causes

- **Angio-oedema (the face, lips and mouth)**

What do u mean by pitting edema ? name some causes of non pitting edema ?

the oedema that leaves an indentation after pressure on the affected area is called 'pitting' oedema,

non pitting edema

lymphatic obstruction/ lymphoedema

- **Infection: filariasis,**
- **Malignancy**
- **Radiation injury**
- **Congenital abnormality**

myxoedema in hypothyroidism

pitting edema ---rest causes r pitting edema (eg heart , liver , kidney causes)

in which malnutrition edema occur ? name some drug causes edema

Kwashiorkor

drug causes edema

- ✓ **calcium channel blocker –Amlodipine , NSAID, steroid , OCP**

name two endocrine disease where we get edema

- ✓ **Conn**
- ✓ **hypothyroidism**

if a diabetic patient come with edema what may be causes

- **nephrotic syndrome**
- **due to loss of vasomotor tone**

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what is the mechanism of edema	
there several causes – ✓ ↓colloid osmotic (or oncotic) pressure due to hypoalbuminea ---(eg. Renal , git) ✓ Increase hydrostatic pressure (heart failure) ✓ Increase capillary permeability (inflammatory causes) ✓ Secondary hyperaldosteronism (mainly in heart failure) ✓ Lymphatic obstruction	
Where we see edema?	
over the shin of tibia just above the medial maleolus …. Press with both thumb over both leg for 10/ 15 sec ..during pressing you should look at patients face to pain in case bed ridden patient ask the patient to sit down see over sacrum or zygomatic arch of face (tell only if ask where we see also)	
mechanism of edema in different disease	
heart failure	due to increase hydrostatic pressure Secondary hyperaldosteronism
nephrotic syndrome	decrease colloid osmotic (or oncotic) pressure due to hypoalbuminea
CLD	portal hypertension decrease colloid osmotic (or oncotic) pressure due to hypoalbuminea

How will differentiate different type of edema?	
heart failure	HO • Respiratory distress or breathlessness. orthopnea • HO heart disease • Edema first appear at dependent part (leg) examination : tachycardia JVP raised tender hepatomegaly investigation : ECG , ECHO , CXR—feature of heart failure unrine RME—normal
nephrotic syndrome	HO edema first appear at face HO of renal disease ---frothy urine . oliguria no HO breathlessness examination :normal (HTN—if AGN) investigation urinary –protienuria (massive) 24 hr total urinary protein serum albumin –decrease

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- **How will differentiate different type of edema?**

CLD	HO • history jaundice , Alcohol , risk factor for HBV (sexual exposure) • swell first appear at abdomen / ascites examination • feature of hepatic insufficiency –hepatic faces , gynaecomastia , spider navi, loss body hair , engorged vein , splenomegaly , testicular atrophy investigation • viral marker (HBS ag) (anti-HCV) • USG • liver function test –Albumin , AG ratio • endoscopy to see varices

tell one bed side test that can help u to diagnosis of cuases of edema

heat coagulation test --- nephrotic syndrome

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what is lymphedema and why it is non pitting and causes ?

Normally, small amount of albumin filtered through the capillaries is absorbed through lymphatics. In lym¬phatic obstruction, water and solutes are reabsorbed into the capillaries, but the protein remains. Fibrosis occurs in the interstitial space and the area becomes hard or thick. Non pitting on pressing .

causes of lymphoedema is due to lymphatic obstruction such as

- **Infection: filariasis,**
- **Malignancy**
- **Radiation injury**
- **Congenital abnormality—turner , yellow nail syndrome**

what investigation you will do in patient with edema ?

urine RME

24 hr total urinary protein

S.creatinine

RBS

ECG

CXR

ECHO

USG of whole abdomen

s.Albumin , A/G ration

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What are the causes of unilateral leg swell?

- Deep venous thrombosis.
- cellulitis.
- Lymphoedema---filariasis
- Ruptured Baker's cyst.

How will differentiate DVT and cellulitis ?

	DVT	**cellulitis**
	less erythemous , non toxic , less rise of temperature	more erythemous , pt toxic , fever , high rise of local temperature
tenderness	along the distribution of deep venous system	diffuse
infective foci	absent	present
leg swelling	entire leg swelling	localized swelling
calf swelling	> 3 cm than opposite limb	< 3 cm than opposite limb
collateral superficial vein	present	absent
investigation	CBC –normal color dopplor --- +	CBC—leucocytosis color dopplor --- negative
risk factor present	immobilization surgery ,pregnancy malignancy ,ocp	DM

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What are thrombophlebitis and phlebothrombosis ?

T**hrombophlebitis** (superficial vein thrombosis): inflammation involving superficial veins (after intravenous fluid or injection . Pain, Increased local temperature ,prominent superficial vein

Phlebothromhosis (DVT): thrombosis in deep veins is non-inflammatory in nature. Present with unilateral swell

investigation of unilateral leg swelling

- ✓ CBC—
  - eosinophil may be high in filariasis,
  - leucocytosis---cellulitis
- ✓ Blood film to see microfilaria (usually at night)
- ✓ Compliment fixation test (CFT) or ICT for filaria.
- ✓ Lymphoscintigraphy
- ✓ FOR DVT
  - D-dimer
  - Doppler USG of lower limb vessels

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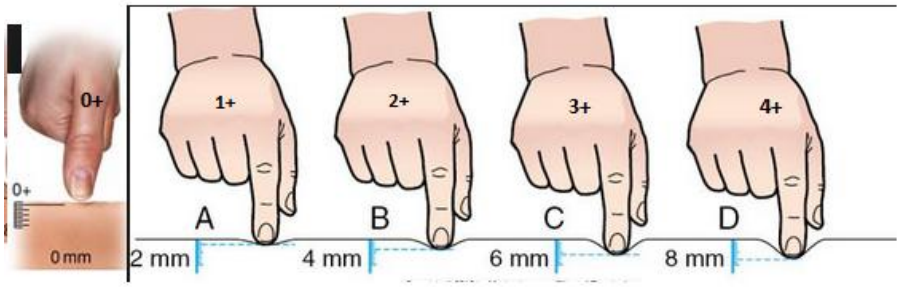
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  - D-dimer
  - Doppler USG of lower limb vessels

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grading	definition
"Absent "	Absent or unilateral
Grade + Mild:	Both feet / ankles
Grade ++ Moderate:	Both feet, plus lower legs, hands or lower arms
Grade +++ Severe	Generalised bilateral pitting edema, including both feet,legs, arms and face
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00+= no pitting edema

1+= mild pitting edema , 2 mm depression that disappears rapidly

2+= moderate pitting edema ,4 mm depression that disappears in 10-15 second

3+= moderately severs pitting edema ,6 mm depression that may last more than 1 minute

4+= severe pitting edema 8mm depression that can last more than 2 minutes

ARTHRITIS



1. duration of pain	acute /chronic < 6 wks –viral and > 6 wk inflammatory arthritis
1. onset	insidious –inflammatory sudden –gout , trauma sub acute –septic
1. joint number 2. single or multiple	mono arthritis –1 oligoarhtritis –(2 to 4)seronegative (AKS,) poly arthritis – 5 or more RA, SLE
1. Sequence of arthritis	which joint first affect ---sequencly mention their name –such first – first ankle joint then knee and then hand joint
1. symmetrical involvement	symmetrical –RA/ SLE asymmetric --seronegative

1. intensity	severe mild to moderate
1. nature	inflammatory—pain is more on rest/ inactivates and decrease during activities
	non-inflammatory -→ pain is more on activites and less on rest
1. Swelling and stiffness	timing of stiffness –early morning or after inactivities
	how long persist → more or less than one hour
1. functional capability	Can patient hold glass , dressing himself Can go toilet without help of other
1. any deformity or	flexor deformity of knee Deformed hand

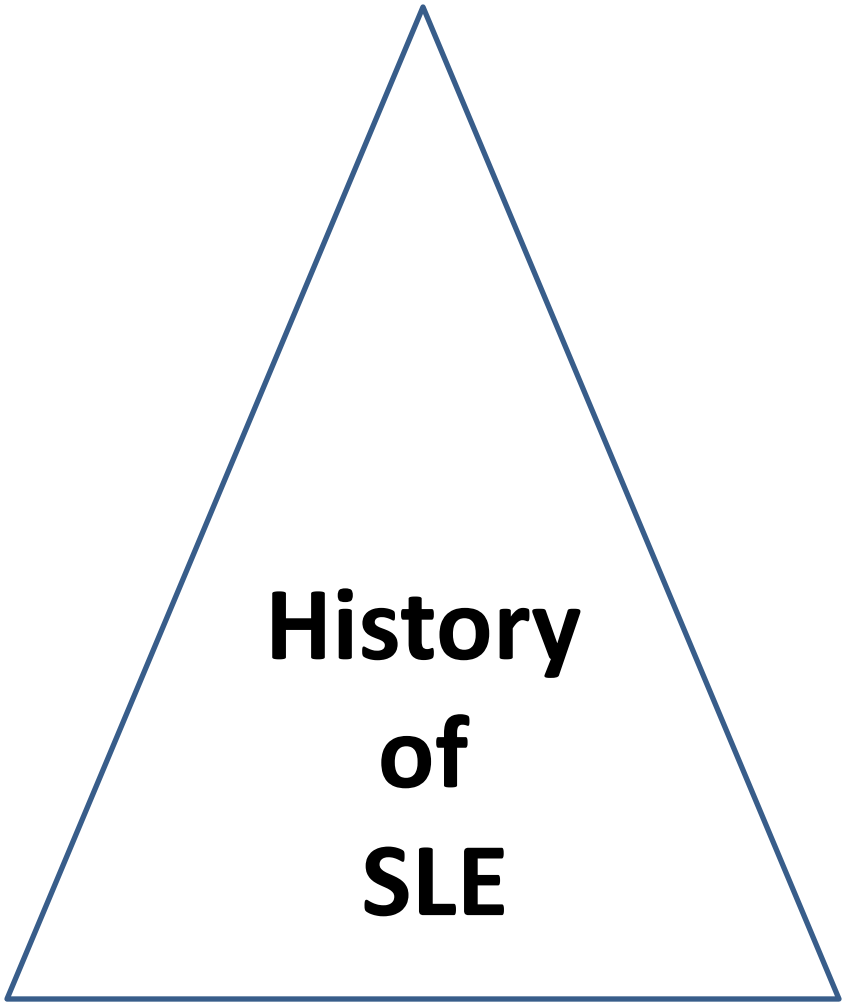
extra-articular sign	
face	hair → alopecia --
	red painful eye –RA, reactive arthitis
	malar rash-→discoid rash
	oral ulcer --SLE
	photosensitivities
	dry mouth , eye –sjogren syndrome
hand	HO raynuad –change of color of finger tips exposure to cold
skin	rash present or not –if present painful or painless , ichy or non itchy ,scale or not
	rash –SLE—face , any where of body
	Gottron's papules—over knuckle ----dermatomyositis
	heliotrope rash—peri- orbital --dermatomyositis
	skin lesion /psoriasis –pt himself or his family member

abdomen	HO bloody diarrhea , abdominal pain -→IBD
	HO UTI , urethral discharge ,diarrhea 1 month before pain →
Bad obstetrical history	abortion ,stillbirth , death fetus ---SLE with anti-phospholipid syndrome
CNS	convulsion / headache / unconsciousness –in SLE
tightening of skin of hand	systemic sclerosis
dysphasia microstomia	
difficulty in standing from squatting position and rash	dermatomyositis and polymyositis

1. HO seronegative arthritis that means HO back pain	low back pain –more on rest and less in activities --inflammatory
	stiffness --inflammatory
	restricted spine move / unable to bending and looking forward , question mark posture --AK
	pain radiate below knee , unilateral or bilateral --PLID
	neurological sign → bladder , bowel
	saddle anaesthesia –Conus or cauda equine &weakness of limb
1. neuropathy	tingling and numbness parasthesia
1. complication	cough , fever , breathlessness
	intra-articular injection-- steroid injection

History of RA

According to statement of the patient she was reasonable well 6 months back then she insidiously developed pain and swelling of multiples joints. At first it symmetrically involved small joints of both hands subsequently / gradually involved both wrists, right elbow, left shoulder, both ankles and right knee joint. This pain increases after prolong **inactivity** or in rest and decrease during activities. The pain was more marked after awakening at morning and sometime this pain awaken her form sleep. This pain is accompanied / associated with morning stiffness which persists more than one hour. The patient have no history of oral ulcer, hair loss, red eyes, dry mouth, skin rash, photo sensitivity , tighten of skin over hand . She also denied any color change of (or pale coloration of finger) her figure in to exposure to cold. She has no recent and previous HO skin disease of herself or her family member. His bowel and bladder habit is normal. This episode of illness was not preceded by any urethral discharge, diarrhea or burning sensation during voiding. Initially patient can do her daily activities like dressing, combing hair, holding glass but now the pain is so severe that she has to depend on others for for these daily activities. The patient has no HO of low back pain, cough, breathlessness, fever, unconsciousness or behavior (CNS Involvement), difficulty in standing from standing position. She had no bad obstetrical history .None of his family member suffering from these types of diseases. She took several types of pain killer and intra-articular injections which give her partially relieved not completely abolish this pain and swelling.


History
of
SLE

According to statement of the patient he was reasonable well 6 months back then he insidiously developed pain and swelling of multiples joints. At first it involved left ankle joint subsequently / gradually involved right knee, right elbow, left shoulder. This pain increases after prolong **inactivity** or at rest and decrease during activities. The pain was more marked after awakening at morning and sometime this pain awaken him form sleep. He gives history of chronic low back pain and stiffness which more marked in rest and relieved after activities. He gave a history of watery diarrhea (**or burning sensation during voidin**g) 1 month before these attack which resolve spontaneously. He has no recent and previous HO skin disease of himself or his family member. His bowel and bladder habit is normal. He also denied any color change of (or pale coloration of finger) her figure in exposure to cold. The patient have no history of oral ulcer, hair loss, red eyes, dry mouth, skin rash, photo sensitivity , tighten of skin over hand . Patient has no HO of cough, breathlessness, fever, unconsciousness, difficulty in standing from standing position.

History of Ankylosing spondyilitis

According to statement of the patient she was reasonable well 6 months back then she insidiously developed pain and swelling of multiples joints (if arthralgia –omit swelling). at first it symmetrically involved small joints of both hands subsequently / gradually involved both wrists, right elbow, left shoulder, both ankles and right knee joint. This pain increases after prolong inactivity or in rest and decrease during activities. This pain is accompanied / associated with morning stiffness which persists more than one hour. The patient also gives HO multiple recurrent painful oral ulcer, hair loss, non itchy painless skin rash over face and photosensitivity. She has no history of red eyes, dry mouth; tighten of skin over her hand & face. She also noticed that her fingers becomes pale followed by reddish in exposure to cold. The patient has no HO of low back pain, cough, breathlessness, dry mouth, fever, unconsciousness ,behavior abnormality , swelling of leg, difficulty in standing from standing position. She had HO of two spontaneous abortion and one IUD but is menstrual cycle is normal in flow and duration. His bowel and bladder habit is normal. This episode of illness was not preceded by any urethral discharge, diarrhea or burning sensation during voiding. She has no recent and previous HO skin disease of herself or her family member. She took several types of pain killer which give her partially relieved not completely abolish this pain and swelling.

Arthralgia:	only pain in the joint
Arthritis:	Pain & swelling of joint.
Monoarthritis	(single joint involvement)
Oligoarthritis	involvement of 2–4 joints
Polyarthritis	involvement of ≥5 joints
Stiffness	Stiffness is the inability to move the joints after a period of rest. It may be due to mechanical dysfunction, local inflammation of a joint or a combination of both

Site of joint involvement	Distal interphalangeal	Osteoarthritis, psoriatic arthritis
	Metacarpophalangeal, PIP	Rheumatoid arthritis, systemic lupus erythematosus
	First metatarsal phalangeal	Gout
	asymmetrical lower limb joint	seronegative arthritis
	spine	ankylosing spondylitis

What is difference between mechanical and inflammatory pain		
point	**mechanical**	**inflammatory**
Onset	Acute	insideires
Exercise	↑pain	↓pain
Rest	↓pain	↑pain
Morning stiffness	Absent	Present
Systemic feature	(-)	(+)
Swell/warm joint	(-)	(+)
ESR	Normal	Raised

Only
for
MBBS
student

monoarthritis	**Oligo-arthritis**
to Remember SGPT-- HOM **S—** Septic arthritis* **G—** gout **P—** pseudogout **T—** Trauma: (haemarthrosis) / Foreign body **H—**Haemophilia (/clotting abnormality) **O—**Oteoarthritis **M—** Monoarticular presentation of oligo- or polyarthritis	RAPE-- Seronegative spondyloarthritis R--Reactive arthritis A--Ankylosing spondylitis P--Psoriatic arthritis E--Enteropathic arthritis

deforming arthitis	migratory arthritis
1. RA 2. OA 3. tropheous gout 4. psoriasis 5. Ankylosing spondylitis	1. rheumatic fever 2. gonocoocal 3. lyme 4. SLE

arthritis with raynaud	arthritis with diarrhea
1. To Remember **MRCS--3** 2. M--MCTD 3. R--RA 4. C--Cryoglobin 5. S--systemic sclerosis 6. S--SLE 7. S--Sjogren when sir ask the question first u tell systemic sclerosis 2nd SLE then rest	**WHIST** 1. W--whipple diseases 2. H--HIV 3. I--IBD 4. S--scleroderma 5. T—TB when sir ask the question first u tell IBD and 2nd scleroderma then rest

Only for postgraduate student

Acute mono arthritis	
monoarthritis of previously healthy joint	mono arthritis of damage /abnormal joint
to Remember SGPT-- HOME S— Septic arthritis* G— gout P— pseudogout T— Trauma: (haemarthrosis) / Foreign body H—Haemophilia (/clotting abnormality) O—Oteoarthritis M— Monoarticular presentation of oligo- or polyarthritis ✓ Reactive, psoriatic ✓ other seronegative spondarthritis ✓ Rheumatoid arthritis ✓ Juvenile idiopathic arthritis E--- Erythema nodosum	to remember F—SHAPE F—fibro-cartilaginous damage S—Septic arthritis S—secondary osteoarthritis H—Haemoarthrosis A— avascular necrosis/ Subchondral collapse or fracture P—Pseudogout in osteoarthritis E—exaggeration of underlyingdiseases

chronic monoarthritis	Oligo-arthritis
FAST POEMS F— Foreign body (e.g. plant thorn) A— Amyloidosis S— Chronic sarcoidosis T— tuberculosis, fungi P— Pigmented villonodular synovitis O— osteoarthitis E— Enteropathic arthritis (Crohn's) M— Monoarticular presentation of oligo-/polyarticular disease Rheumatoid arthritis Seronegative spondarthritis Juvenile idiopathic arthritis S-- Synovial sarcoma	RAPE--JiOE Seronegative spondyloarthritis R--Reactive arthritis A--Ankylosing spondylitis P--Psoriatic arthritis E--Enteropathic arthritis Erythema nodosum Juvenile idiopathic arthritis Oligoarticular presentation of polyarthritis Infection, Infective endocarditis Neisseria Mycobacteria

Poly-arthritis Detail	
Common	**Rare**
1. Rheumatoid arthritis 2. Viral arthritis 3. Osteoarthritis 4. Psoriatic arthritis 5. Ankylosing spondylitis 6. enteropathic arthritis 7. SLE	1. Systemic sclerosis 2. polymyositis 3. Hypertrophic osteoarthropathy 4. Haemochromatosis (Small and large join) 5. Acromegaly (Mainly large joints and spine)
uncommon	
1. Juvenile idiopathic arthritis 2. Chronic gout 3. Chronic sarcoidosis (Symmetrical, small and large joints) 4. Polymyalgia rheumatica	

bone pain without fracture	recurrent fracture
To remember 2 MOP + CKD 1. M— a. Malignancy i. primary tumor ii. metastatic tumor (breast , lung , prostate) b. Multiple myeloma 2. O-- a. osteomalacia b. osteomyelitis c. osteonecrosis 3. P— a. Paget disease b. Parathyoroid -- Hyperparathyroidism 4. CKD	to remember MOP M— 1. Metastasis malignancy O— 1. osteomalacia 2. OsteOporosis P— 1. paget disease 2. parathyoroid -- Hyperparathyroidism

name the causes viral arthritis if duration is less than 6 wk	Arthritis of small joint of Hand?
Viral MRCP--BIH M--mumps R—Rebulla, (L) C—chickungynia / chicken pox P—parvo-virus –B--19 B—HBV<HCV I— infectious mononucleosis (L) H—HIV	1. Viral 2. RA 3. SLE 4. Psoriatic 5. nodal osteoarthritis 6. systemic sclerosis

joint pain with oral ulcer	joint pain with leg ulcer
1. SLE 2. reactive arthritis 3. rieter s 4. enteropathic arthritis 5. Bechet disease 6. Vasculitis 7. drug reaction	1. RA 2. Ankylosing spondylitis 3. systemic sclerosis 4. enteropathic arthritis 5. vasculitis 6. HIV 7. TB
joint pain with red eye	**arthritis with nodule**
1. RA 2. sarcoidosis 3. AKS 4. reactive 5. rieters 6. IBD 7. Vasculitis	RA CREST of SS osteoarhitis Gout Rheumatic fever

joint pain renal failure	joint pain + exertional dyspnea
musculoskeletal 1. SLE 2. systemic sclerosis 3. Vasculitis 4. NSAID + RA infiltrative 1. sarcoidosis 2. amyloidosis infection 1. infective endocarditis	musculoskeletal 1. RA 2. systemic sclerosis 3. Dermatomyositis 4. polymyositis 5. SLE 6. MCTD 7. Vasculitis 8. Ankylosing spondylitis infiltrative 1. Sarcoidosis
Digital gangrene and arthritis	arthritis with jaundice
1. SLE 2. Systemic sclerosis 3. Vasculitis—primary and secondary 4. anti—phospholipid syndrome 5. infective endocarditis	1. viral hepatitis (HBV,HCV) 2. Auto—immune hepatitis 3. PBC(primary biliary cirrhosis) 4. haemochromatosis 5. Sarcoidosis

JOINT PAIN AND SEROSITIS (PLEURAL EFFUSION AND ASCITES)	joint pain and splenomegaly +/- fever
connective tissue disease 1. SLE 2. RA 3. vasculitis 4. adult still 5. MCDT 6. adult still 7. in children JIA infection 1. TB haematology : 1. Lymphoma 2. leukaemia	connective Tissue disease 1. SLE 2. RA with felty 3. Adult still infection : 1. TB 2. infective endocarditis 3. HIV blood 1. lymphoma 2. leukaemia 3. hemolytic anaemia with secondary haemochromatosis other 1. amyloidosis 2. sarcoidosis

arthritis with fever with	
connective tissue disease	1. SLE 2. RA 3. Sjogren 4. sarcoidosis 5. Adult still
infection	1. HIV 2. TB
	1. Viral fever if duration is less than < 6 wk MRCP--BIH M--mumps R—Rubella, C—chickungynia / chicken pox P—parvo-virus –B--19 B—HBV<HCV I— infectious mononucleosis H—HIV
Blood	1. Lymphoma 2. ALL (child)
Drug :	

Causes of proximal muscle pain or weakness ? MI-→DIE	
M—Metabolic Myophosphorylase deficiency Hypokalaemia Osteomalacia	D--- Drugs/toxins Alcohol &Cocaine Fibrates & Statins Penicillamine &Zidovudine
I –Inflammatory Polymyositis Dermatomyositis Inclusion body myositis Polymyalgia rheumatica	I—infection Viral (HIV, cytomegalovirus, rubella, Epstein–Barr, echo) Parasitic (cysticercosis, toxoplasmosis) Bacterial (Clostridium perfringens, staphylococci, tuberculosis, Mycoplasma")
	E –Endocrine Hypothyroidism Hyperthyroidism Cushing's syndrome Addison's disease

arthritis with raynaud	arthritis with diarrhea
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60 yr older generalized body ache	Back pain
MP—MOFEJ — Metastatic bone disease multiple myeloma P— Paget's disease Polymyalgia rheumatica M— Myositis O— Osteomalacia& Osteoarthritis F— Fibromyalgia E—endocrine (PAT) P—primary hyperparathyroidism A—Addison T—hypothyroidism J--- Joint hypermobility (omit it older age)	to remember MINO/ MINS 1. M-Mechanical 2. I-Inflammatory a. Ankylosing spondylitis b. Psoriasis c. Spondyloarthritis 3. N-Neoplastic a. Malignancy b. Infection 4. O-Other (structure itself)/S-Spine a. Prolapsed disc b. Spinal stenosis& Paget's disease c. Fracture & lumbar spondylosis

neck	
M—Mechanical Postural Whiplash injury Disc prolapsed Cervical spondylosis M—Metabolic Osteoporosis Osteomalacia Paget's disease I—Inflammtory Infections Spondylitis Juvenile idiopathic arthritis RA Polymyalgia rheumatica	N—neoplastic Metastases Myeloma Lymphoma • Intra thecal tumours O—others Fibromyalgia Torticollis R—referred Pain Cervical lymph nodes Teeth Pharynx Angina pectoris Aortic aneurysm Pancoast tumour Diaphragm
thicken skin	
musculoskeletal 1. systemic sclerosis 2. morphea 3. scleroedema 4. eosinophilic fasciitis Metabolic 1. amylodosis 2. porphyuria cutena tarda	endocrine 1. DM 2. Hypothyroid 3. Acromegaly infection 1. leprosy Drug (bleomycine , venylchloride)

ANAEMIA

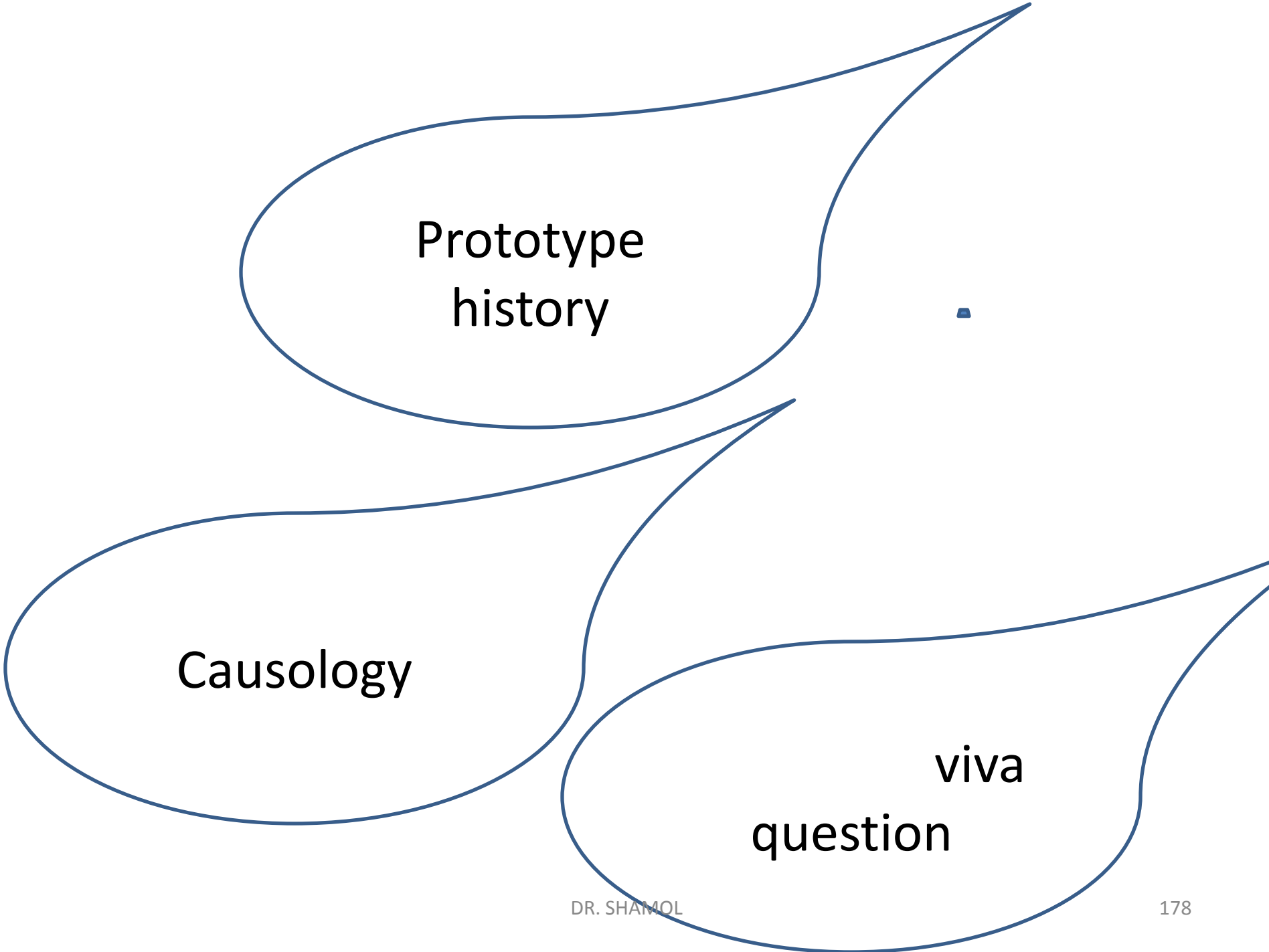


Anaemia Anaemia + fever=	leukaemia , aplastic anaemia , kala-azar , lymphoma
Anaemia + bleeding =	aplastic anaemia + leukemia
naemia +HTN / nausea =	CKD
Anaemia + edema =	CKD ,anaemic heart failure , malnutrition
Anaemia + organomegaly =	thalassaemia , lymphoma , leukaemia , Kala-azar
AAnaemia + neurological feature +	= B12

Symptoms due to anaemia	➢ weakness, fatigue , palpitation , ➢ dizziness ➢ breathlessness / oedema
HO blood loss /bleeding maninifestation	➢ acute or chronic ○ epistaxsis, gumbleeding , haemoptysis ,haematomesis , melena ,bloody diarrhea , ➢ chronic hemorrhoid, menorrhagia
skin rash	➢ purpuric rash –if present following HO ➢ non-itchy ,painless /painful , palpable , variable size and shape
fever	fever , weight loss , night sweat –TB ,lymphoma fever , bleeding manifestation, toxic --leukemia

HO for etiology	
Iron deficiency anaemia	➢ HO abdominal pain , dyspepsia ➢ alteration of bowel habit / melena –ca colon ➢ drug steroid and NSAID
vitB12	➢ dietary HO –vegan ➢ malabsorption → ➢ neurological feature tingling and numbness parasthesia ,limb weakness ➢ visual disturbance (optic atrophy), loss of memory –dementia ➢ HO surgery , gastrectomy , ileal surgery, IBD ➢ chronic pancreatitis –recurrent upper abdominal pain , diarrhea ➢ prolong use of PPI and ➢ pernicious anaemia --vitiligo / other autoimmune disease –thyroid and DM

if suspect aplastic anaemia	past ho jaundice/ viral hepatitis –
	drug history –cytotoxic , anti-convulsant, anti-thyroid
	radiotherapy –
	exposure to –OPC, DDT, benzene
	occupation → farmer , dye industry , radiotherapy department
for anemia of chronic diseases	➢ CRF—anorexia , nausea , HTN, edema , DM ➢ joint pain and rash connective tissue disease ➢ edema + breathlessness ---HF
in all cases	➢ sanitary latrine , blood transfusion , bone marrow aspiration


Prototype
history
Causology
viva
question

According to the statement of the patient he was reasonable well 2 months back. Then He insidiously developed fatigue or generalized weakness .But now it becomes so severe that He feels difficulties during doing ordinary daily activities like, shopping, climbing stair. This weakness was associated with occasional dizziness and palpitation especially after exertion.

He **denies** any history of fever, recurrent upper abdominal pain, anorexia, and nausea, alteration of bowel habit, jaundice, cough, chest pain, and breathlessness, joint pain, rash and leg edema. Patient also denies any episode of acute and chronic blood loss in form of vomiting and coughing out of blood, Nasal or gum bleeding, passes of fresh per rectal blood or black tarry stool.(**if present then mention it**)

His bowel and bladder habit is normal and having no neurological symptoms like, burning, tingling, numbness, visual and memory disturbance.

With this complains He visited several physicians treated with oral medication that transiently improved his symptoms .so He admitted in MMCH for better management. Here 2 unit of whole blood was transfused (**tell if given**) and endoscopy, colonoscopy and bone marrow examination was done (**mention only if patient tell**),

Drug history reveals patient is occasional user of anti-ulcer drug but no history taking pain killer drug

None of his family member suffered from similarly type of disease

He is non-alcoholic, non-smoker, Uses sanitary latrine and drink arsenic free tube well water

Morphological	
Microcytic, hypochromic (MCV<76 fl)	**TISA** T— Thalassaemia I— Iron deficiency S— Sederoblastic anaemia A--- Anaemia of chronic disease (in some case)
Macrocytic MCV>95 fl	1.Megaloblastic: vitamin B12 or folate deficiency 2.Non-megaloblastic: alcohol, liver disease, Myelodysplasia, hypothyroid , ***first tell** 1 & if want to more then tell 2
Normocytic anemia ABC	C-(Chronic)-Anemia of chronic disease CRF, connective tissue disease A--(Aplastic)--Aplastic aneamia B—(Blood)--Anemia due to acute blood loss

etiological classification	
due to blood loss	acute haemorrhage
increased haemolysis	Haemolysis Hypersplenism
Decreased or ineffective marrow production	1. Lack of iron, vitamin B12 or folate 2. Hypoplasia/myelodysplasia 3. Invasion by malignant cells 4. Renal failure 5. Anaemia of chronic disease

in general --J—jaundice S—Splenomegaly , O—no organomegaly -H-- hepatomegaly L—Lymphadenopathy

common causes anaemia / simple anaemia

1. iron deficiency anaemia--O
2. megaloblastic anaemia –O,S
3. aplastic anaemia--O
4. malabostion --O
5. multiple myeloma--O

haemolytic anemia

1. Auto-immune anaemia--JSH
2. thalassaemia --JSH

haematological malignancy

lympho proliferative disease-

1. acute leukaemia--- JSHL
2. CLL--- JSHL
3. lymphoma-- JSHL

myloproliferative disease

1. mylofibrosis--S
2. CMI-- SH
3. multiple myeloma--o
4. waldenstrom macrogolbinaemia--SH

chronic diseases

1. **connective tissue disease**
   a. RA, SLE --SHL
2. **CRF--O**
3. **CLD--JSH**
4. **endocrin**e
   a. hypothyroid--O
   b. hypopituitism --O
   c. Addison's --O

causes of anemia with **--J—jaundice S—Splenomegaly , O—no organomegaly -H--hepatomegaly L—Lymphadenopathy**	
common causes anaemia / simple anaemia	1. iron deficiency anaemia--O 2. megaloblastic anaemia –O,S 3. aplastic anaemia--O 4. malabostion –O 5. multiple myeloma--O
haematological malignancy	lympho proliferative disease- 1. acute leukaemia--- JSHL 2. CLL--- JSHL 3. lymphoma-- JSHL
	myloproliferative disease 1. mylofibrosis--S 2. CMI—SH 3. multiple myeloma--o 4. waldenstrom macrogolbinaemia--SH
GO NEXT SLIDE	**1. mylodysplastic syndrome—S**

causes of anemia with --J—jaundice S—Splenomegaly , O—no organomegaly -H--hepatomegaly L—Lymphadenopathy	
infection	1. Kala-azar--JSH 2. chronic malaria—JSH 3. disseminated TB—JSHL
haemolytic anemia	1. Auto-immune anaemia—JSH 2. thalassaemia --JSH
chronic diseases	**1. connective tissue disease** a. RA, SLE --SHL **2. CRF--O** **3. CLD--JSH** **4. endocrin**e a. hypothyroid--O b. hypopituitism –O c. Addison's --O
Malignancy	**-O**

anemia with edema	
here edema may be due to underlying causes it self Likes: **abdominal causes** 1. Malabsorption 2. CRF 3. CLD **connective tissue disease** 1. SLE 2. RA **endocrine** 1. hypothyroid **infection** 1. Kala-azar **haematological** 1. Multiple myeloma (nephrotic syndrome) 2. lymphoma (nephrotic syndrome)	**oedema may result of complication like heart failure due to severe anaemia of any causes** 1. iron deficiency anaemia 2. aplastic anaemia 3. megaloblastic anaemia 4. thalassamia 5. heamatological malignancy 6. combined deficiency

aneamia with ascites	
here ascites may be due to underlying causes it self likes: **1. malabsorption** **2. organ failure** a. CLD b. CRF/ CKD **3. infection** a. abdominal TB b. HIV **4. malignancy** a. lymphoma b. intra-abdominal malignancy **5. endocrine disease** a. hypothyroid disease **6. connective tissue** a. SLE.RA b. Adult still disease	**ascites may result of complication like heart failure due to severe anaemia of any causes** 1. iron deficiency anaemia 2. aplastic anaemia 3. megaloblastic anaemia 4. thalassamia 5. heamatological malignancy 6. combined deficiency

causes of refractory anemia	
common causes hematological 1. aplastic anemia 2. myelodysplastic syndrome 3. sideroblastic anemia 4. myelofibrosis 5. thalassamia major **heamatological malignancy** 1. lymphoma 2. CLL 3. CML 4. Multiple myeloma **other than heamatological** 1. CKD **Connective tissue disease** 1. SLE 2. RA	**other causes where ongoing loss or replacement therapy is inadequate :** 1. iron deficiency anemia due to Malabsorption with oral iron replacement 2. ongoing loss –bleeding 3. any malignancy 4. anemia due to hypersplenism

anaemia with high ESR	striking pallor
infection	**this striking pallor may be**
1. kala-azar	1. due to anaemia or
2. disseminated TB	2. other than anaemia
connective tissue diseases	**in case of severe anaemia**
1. SLE	1. Aplastic anaemia
2. RA	2. Iron deficiency anaemia
malignancy	3. multiple myeloma
1. Multiple myeloma	4. thalassaemia major
2. lymphoma	5. myelodysplastic syndrome
3. leukaemia	**other than anaemia**
4. other malignancy	**Endocrine**
heamatological	1. Hypothyroidism
1. aplastic anaemia	2. hypopituitarism
2. myelodysplastic syndrome	**shock**
3. myelobfibrosis	
any causes of anemia causes high ESR	

Q. **Define Anaemia.**

Anaemia is a clinical condition characterized by both qualitative and quantitative decrease in Hb below the normal level irrespective to age and sex of a person.

Q. Where we look anemia?

- Lower palpebral conjunctiva.
- Dorsal surface of tongue.(tongue is smooth and loss of papilla)
- Palm and sole of feet.
- Whole body

Then what is your finding : tell with adjective such pt is mildly /moderately / severely anemic

Classify anaemia

Etiological	Central cause	→Marrow failure → aplastic anaemia, anemia of chronic disease
	Peripheral cause	→ blood loss, heamolysis

Morphological	Microcytic hypochromic anaemia	**(MCV<76 fl)** **to remember TISA** **T—** Thalassaemia **I— Iron deficiency** **S—** Sederoblastic anaemia **A-- Anaemia of chronic disease (in some case)**
	Macrocytic anaemia	MCV>95 fl **to remember---MND** M--Megaloblastic: vitamin B12 or folate deficiency N--Non-megaloblastic: alcohol, liver disease,hypothyroid **D**--(dysplastic)--Myelodysplasia,
	Normocytic normochromic anaemia	**to remember ABC** A--Aplastic aneamia B--Anemia due to acute blood loss C--Anemia of chronic disease –CRF, connective tissue disease

what is the normal Hb level ?		
male: 13-18 gm/dl Female: 11.5-16.5 gm/dl		
Q. In which condition Hb level is 100% and ESR `0'?		
Ans. Polycythaemia		
what r causes of iron deficiency anemia?		
In both male & female PUD Hook worm Carcinoma stomach Drug- NSAID haemorrhoid	**In female-** Pregnancy Menorrheagia	**Other**- malabsorbtion Coeliac disease

What are investigation of iron deficiency , thalassemia ,Megaloblastic anemia?		
Iron deficiency	**thalassemia**	**megaloblastic**
blood TC, DC, Hb%, ESR PBF- Microcytic hypochromic anaemia **Iron profile:** Serum ferritin ↓ Total iron binding capacity ↑ **To find etiology**: Upper GI endoscopy Colonoscopy barium follow through Stool for ova of helminthes	**blood** TC, DC, Hb%, ESR PBF- Microcytic hypochromic anaemia reticulocyte ↑ S.bilirubin **Iron profile:** Serum ferritin ↑ Total iron binding capacity ↓ **To comfirm diagnosis:** Heamoglobin electrophorosis	**blood** Hb% PBF- macrocytic RBC Bone marrow- megaloblast Vitamin B_{12} level or red cell folate level **To see cause**: • Schilling test • Enodoscopy to see atrophic gastritis • Anti-parietal cell antibody
single test to dx	**single test to dx**	**single test to dx**
Serum ferritin ↓	Heamoglobin electrophorosis	Bone marrow- megaloblast S. Vitamin B_{12} level

What is the clinical feature of iron? thalassemia, megaloblastic?		
iron	thalassemia	megaloblastic
HO of blood loss	family history	HO etiology dietary HO --vegan gastric/ intestine operation pernicious anemia malabsorption
eye :anemia **tongue**: smooth pale and loss of papillae **Mouth:** glossitis, angular stomatitis **nail** : koilonychia	**face** • heamolytic face **eye** • anemia • jaundice abdomen • hepato-splenomegaly	**eye** :anemia **tongue : glossitis** **neurological** **Eye**: optic atrophy Loss of **memory** : dementia **sensory :** Sensation loss in gloves and stocking pattern , loss of vibration and joint sense position

Investigation of anemia ?			
	iron	thalassaemia	anemia of chr. Dis
CBC	Hb ↓	Hb ↓	Hb ↓
PBF	microcytic hypochromic	microcytic hypochromic	normocytic normochromic
reticulocyte	N	↑	N
bone marrow iron	↓	↑	↑
s.feritin	↓	↑	↑
S.iron	↓	↑	n/
TIBC	↑	↓	↓
Transferrin saturation	↓		
Soluble transferrin receptor	↑	N/	N /↓
Hb electrophorosis	not done	confirm diagnosis	not done
for etiology	Upper GI endoscopy Colonoscopy Stool for ova of	genetic study	S.creatinine

Q. What are the PBF findings in iron deficiency anaemia?

Ans. Microcytic hypochromic anaemia, anisocytosis, pencil cell, target cell, nucleated RBC.

How will you differentiate PBF of iron deficiency anaemia and Thalassaemia.?

Iron deficiency anaemia	Thalassaemia
Few target cell No features of heamolysis	Plenty of target cell Features of heamolysis present eg. Fragment cell, Pencil cell

What are the PBF findings of Vitamin B_{12} and Folic acid deficiency?

Ans. Pancytopenia with Macrocytosis with hypersegmented neutrophil. Megaloblast & Howel-jolly body may present.

Q. Bone marrow findings of Vitamin B_{12} deficiency?

Ans. Megaloblastic change in erythoid series .

Q. what are the other causes of macrocytosis?

Ans.

Alcohol

Liver disease

Hyperlipidaemia

Name the sites of iron and Vitamin B_{12} absorption.?		
Iron absorbed in jejunam. Vitamin B_{12} absorbed in ileum		
Q. **What are the causes of megaloblastic anaemia?**		
Deficiency of Vitamin B_{12} and Folic acid.		
Q. **Vitamin B_{12} and Folic acid deficiency- which one is more common? Why?**		
Ans. Folic acid deficiency is more common than vitamin B_{12} deficiency.		
Point	Vitamin B_{12}	Folic acid
Store	3years	3 months
Sources	Animal	plant
Effect of cooking	Not destroyed	Destroyed during cooking
Q. in which anaemia causes neurological manifestation ?		
Megaloblastic anaemia due to Vitamin B_{12} deficiency		

Q. Name causes of Vitamin B_{12} and Folic acid deficiency

causes of Vitamin B_{12} and Folic acid deficiency:

Vitamin B_{12}	Folic acid
✓ Diet: vegan ✓ Stomach: o pernicious anaemia, o partial/ total gastrectomy ✓ Intestinal: malabsorption o tropical sprue, o coeliac disease, o crohn's	diet: Increased demand, poor intake of vegetables Intestine: malabsorption, coeliac disease Drug: phenytoin, MTX Other haemolysis,

Q. **How Vitamin B_{12} absorbed in GIT?**

Ans. Vitamin B_{12}+food→ stomach acid causes release of Vitamin B_{12} from food → Vitamin B_{12} + intrinsic factor(secrete from parietal cell) → absorption at terminal ileum.

What is pernicious anaemia?

It is an autoimmune disease in which antibody is formed against parietal cell (which secrete intrinsic factor)

Q. Tell me the one investigation to diagnose iron deficiency anaemia.
Ans. Serum Ferritin
Q. Mention the treatment of iron deficiency anaemia
Ans. Tab. Ferus Sulphate (200mg), tds, for 3-6 months.
how will follow uP / how will understand that anemia is improved?
Follow up: ✓ Hb will increase 1gm/dl in every 7-10 days. ✓ Reticulocyte count will increase after 1 week
What are the indications of blood transfusion in anaemia?
✓ Angina ✓ Heart failure ✓ Evidence of cerebral hypoxia.
What are the complications of oral iron therapy?
Dyspepsia, Altered bowl habit.
What is the indication of Parenteral iron therapy?
Malabsorption. severe anaemia
. Infusion of 1 unit of blood causes how much increase in Hb level?
Infusion of 1bag blood causes 1gm/dl increment of Hb level.

name iron therapy ?	
oral	parental
✓ Ferrous sulphate 200 mg times (195 mg of elemental iron per day) ✓ ferrous gluco-nate 300 mg twice daily (70 mg of elemental iron)	old preparation iron dextran iron sucrose new preparations iron isomaltose and iron carboxymaltose
what is the treatment of Vitamin B_{12} deficiency anaemia?	
Vitamin B_{12} supplementation: Inj. Hydroxycobalamine 1000 µgm , 1 ampule, I.M. every 2 day for 5 days. Maintenance: 1 amp, I.M. 3 monthly for lifelong.	
What is the treatment of folic acid deficiency?	
Tab. Folic acid 5 mg, (1+0+0) for 3 weeks, than lifelong	
What is the importance of folic acid in pregnancy?	
Deficiency of folic acid during pregnancy causes neural tube defect in fetus.	
To prevent neural tube defect in fetus, when folic acid supplementation should be started ?	
Folic acid supplementation should be started before conception, because,	

In witch conditions folic acid is used prophylactically?
Haemolytic anaemia Pregnancy With MTX therapy
Q. If a patient with Vitamin B_{12} deficiency is given folic acid without giving Vitamin B_{12}, what will happen
Ans. It will cause subacute combined degeneration of spinal cord.
Q. . What are the neurological feature of subacute combined degeneration of spinal cord?
Ans. Jerks absent but planter extensor .
Q. what is the daily requirement of Vitamin B_{12}?
Ans. 1µgm/ day
what are the sources of Vitamin B_{12}?
Animal source.
What are the causes of anaemia of chronic disease?
Renal failure Connective tissue disease
Q. What are the PBF findings of anaemia of chronic disease?
Ans. Normocytic normochromic RBC.

Q. what is the mechanism of anaemia of chronic disease

Ans. IL_6 suppresses the bone marrow.

Q. What biochemical abnormality occurs in heamolytic anaemia?

Ans. Mnemonic: BDR- Head- quarter

B- ↑billirubin

D- ↑LDH

R-↑Reticulocyte

Head-↓heptoglobin

Quarter-↑urobillinogen

how will calculate parental iron requirement.	needed iron is = (15—measured Hb) X Wt in kg X2. 3 + 500mg (for storage) given in 3 dose every alternate day in 500 DA xenofer –100mg /5ml

WEAKNESS



weakness	It may **occur** due to muscle weakness –myopathy
	Neurological causes → GBS and peripheral neuropathy
	Spinal cord lesion cord compression , ATM(acute transverse myelitis)
	Neuromuscular junction → myasthenia
	Stroke –hemiparesis

age	Duchene and backer →child hood limb girdle →adult
onset	sudden onset –stroke
	sub acute--ATM
	gradual –Myopathy ,neuropathy
static or progressive	static –stroke
	progressive –myopathy and neuropathy
duration	intermittent –myasthenia and hypokalaemic periodic paralysis
	diurnal variation –myasthenia occur at the end of day
if Intermittent or episodic	How frequent / interval between attack
	How long persist
	How recovery occur

<table>
<tr><td rowspan="8">Involvement of the limb
sequence – which limb involves first (upper or lower / right or left) and which limb involve next.
which part of limb involve Proximal or distal</td><td rowspan="8">Which group of muscle involve</td><td colspan="2">→in neuropathy--distal group</td></tr>
<tr><td colspan="2">→ in myopahty –proxymal group</td></tr>
<tr><td rowspan="8">(symptoms)--- the way patient describe their weakness</td><td rowspan="2">Lower limb proximal</td><td>1.Standing from sitting position</td></tr>
<tr><td>2.Climbing upward stair</td></tr>
<tr><td rowspan="2">Lower Limb distal</td><td>1.Shoe comes out of feet Spontaneously (foot drop)</td></tr>
<tr><td>2.Climbing downward stair</td></tr>
<tr><td>Upper limb proximal</td><td>1.Raise the hand above shoulder
a)Combing hair
b)Dressing / undressing</td></tr>
<tr><td rowspan="2">Upper limb distal</td><td>Buttoning , writing ,hold a glass</td></tr>
<tr><td>Eating and unlocking key , opening mouth of bottle</td></tr>
</table>

functional status	now the patient is bed ridden chair bound have to depend on others for daily activities
involvement of other muscle of the body brainstem or bulbar muscle involvement respiratory muscle involvement to remember 6 D	Dysphagia (difficulty in swallowing) Dysarthia (difficulty in articulation) Dysphonia (difficulty in phonation) Diplopia (double vision) Dyspnea (breathless ness) Dropping eye lids (ptosis) Drooling of saliva Nasal regurgitation / chocking / nasal voice
sphincter or Bowel bladder involvement	bladder–in form of retention or incontinence bowel—fecal in continence

if ur case is neuropathy	
1. Sensory feature	negative symptoms ➢ Numbness ,heaviness
	positive symptoms ➢ tingling , cramp ➢ burning sensation , parasthesia
1. Feature of dorsal column lesion	Pt state that when she walk , she feel that she is walking on cobble
1. Autonomic involvement	➢ Increases or decreases sweating , ➢ Dry mouth / eye ➢ Erectile Dysfunction ➢ Diarrhea and gastroparesis ➢ Dizziness or fall (due to postural hypotension)
Feature of inflammatory myopathy (polymyositis /dermatomyositis)	➢ Fever ➢ Rash ➢ Joint pain ➢ Muscle pain ➢ Muscle pain after exercise then weakness – metabolic myopathy

HO periodic paralysis	thus the weakness ➢ occur after taking carbohydrate food , exercise ➢ short lasting (4 to 24 hr) ➢ recurrent ➢ family history
muscle wasting and twitching of muscle	muscle wasting neuropathy –early myopahty --late wasting / spontaneous twitching MND
History of higher psychic function –dementia , speech	specially incase of stroke
Family HO	hereditary neuropathy hereditary spastic paraparesis
Alcoholic	

Drug and toxin	OPC / herbal drug ,steroid / statin exposure to toxin → arsenic tubewel water, lead
IQ/ academic performance	in case of child (Duchene and backer)
In case of GBS Take preceding HO	Ho diarrhea , fever and vaccination ,1-3 week before of development of this symptoms
take history spondylosis	in case cervical → neck pain with /without radiate to upper limb in case lumber → back pain with or without radiate to lower limb H/ O radicular pan ➢ severe electrical shock like , lancating pain confine to specific dermatome , increase on straining coughing

history of trauma	
history of fever, weight loss, night sweat ,	TB (pott)
History of malignancy	such in case female –breast lump in case of male – ➢ bronchial carcinoma -→ cough , smoker , haemoptysis ➢ prostate → increase frequency and urgency , hesitancy in both ➢ lymphoma , leukemia ➢ multiple myeloma → old age , generalized body ache

if the patient is myopathy exclude endocrine causes Cushing hypothyroid Addison Hyperthyroid	Face –Cushing , hypothyroid , thyrotoxic ,
	Feature of hypo thyroid ---weight gain , cold intolerance , husky and croaky voice , constipation
	Hyperthyroid---wt loss, heat intolerance, diarrhea, increase appetite. Palpitation , sweating
	Addison –wasting , fever , diarrhea , vomiting ,pigmentation ,

- First sure its neuropathy or myopathy or cord compression
- First describe the pattern of weakness from first to present and what functional status is
- Now history of muscle ---brainstem, bladder and bowel, cerebellar ,
- Any sensory complained specially if neurology
- Then go for etiology

NEUROPATHY

According to the statement of the patient she was reasonable well 6 months back then she gradually developed weakness of both lower limbs which was progressive in nature . Initially the weakness started from right lower limb then subsequently involved the left lower limb and then both upper limbs. At first she noticed that her Shoe comes out of her feet Spontaneously (foot drop) and she felt difficulty in walking specially Climbing downward stair(be-care full people from village may not opportunity to climbing stair so not use this term for them) and she also felt difficulty in fine activities like Buttoning , writing ,holding a glass ,Eating , unlocking key , opening mouth of bottle. For the last one month she become bed ridden / chair bound and has to depend on others for day to day activities. She also complained pain and needles sensation / numbness and parasthesia in all limbs in glove and stocking pattern. She also noticed gradual wasting of his distal part of limb. She has no history of double vision, difficulty in swallowing, breathlessness. Her bowel and bladder habit is normal .Patient has no complained regarding increased or decreased sweating, dry mouth, palpitation, diarrhea (**autonomic neuropathy, include erectile dysfunction—incase male**). She has no history of rash, muscle and joint pain or oral ulcer. She has no history of diabetic or kidney disease

She is non smoker, non-alcoholic, no significant drug history and NO history exposure to OPC (i**f patient is male and farmer—the patient is cultivators has exposure to OPC**). Use arsenic free drinking water

None of her family members suffering from this type of illness.

MYOPATHY

According to the statement of the patient she was reasonable well 6 months back then she gradually developed weakness of both lower limbs and this weakness was progressively increasing. Initially the weakness started from right lower limb then subsequently involved the left lower limb and then both upper limbs. At first she noticed difficulty from standing from sitting posing / squatting position and climbing upstairs. Subsequently she developed difficulty in raising the hand above shoulder, combing hair, Dressing / undressing herself. For the last one month she become bed ridden / chair bound and has to depend on others for her daily activities. This weakness not related with exertion (metabolic & mitrochrondial), muscle pain, no diurnal variation and she has no history of double vision, difficulty in swallowing, breathlessness. Her bowel and bladder habit is normal. She also noticed gradual wasting of his proximal part of limb .She denies any fever, joint pain, rash, sensory complains like parasthesia, numbness. The patient has no history of weight gain or weight loss, cold or heat intolerance, palpitation, polyuria or polydipsia.

She is non smoker, non-alcoholic, no significant drug history and NO history exposure to OPC (if patient is male and farmer—the patient is cultivators has exposure to OPC). Use arsenic free drinking water.

None of her family members suffering from this type of illness.

COMPRESSIVE MYELOPATHY

According to the statement of the patient he was reasonable well 6 months back then he developed Low back pain which was dull and aching is nature mild to moderate in severity aggravated during movement, coughing and straining and relieved by rest or lying down .sometime the pain radiate along the buttock up to below knee like lancating or electrical shock. He also complained parasthesia (**only mention if patient tell u about pain and sensory)**. Two months later he gradually developed weakness of both lower limbs and this weakness was progressively increasing. Initially it started from right lower limb then subsequently involved the left lower limb (**then both upper limbs –only mention if patient have quadriparesis**). Earlier part of weakness He was able to walk with some difficulties. For the last one month he become bed ridden / chair bound and has to depend on others for day to day activities like going toilet .He also noticed numbness/ loss of sensation that extend from feet with upper limit just below the costal margin . At last he developed bladder involvement in form of acute retention that relieved by catheterization. He also becomes constipated. This weakness has no diurnal variation .He denies any blurring of vision ,double vision, difficulty in swallowing, breathlessness, muscle pain ,rash ,fever ,cough out of blood and night sweat and weight loss during the course of illness .

he is non smoker, non-alcoholic, no significant drug history and having no past history of urinary frequency urgency and hesitancy**(Ca prostate),**coughing out of blood **(Ca bronchus),** generalized body ache **(multiple myeloma) trauma** NO history exposure to OPC (if patient is male and farmer—the patient is cultivators has exposure to OPC) or other Toxin . Use arsenic free drinking water.

None of her family members suffering from this type of illness.(hereditary paraparesis)

TRANSVERSE MYELITIS

According to the statement of the patient he was reasonable well 1months back then he suddenly developed weakness of both lower limbs and this weakness was progressive for few hours then it become static .for this weakness he become bed ridden / chair bound and has to depend on others for day to day activities like going toilet .He also noticed band like tightness around the chest associated with numbness / loss of sensation that extend from feet with upper limit just below the costal margin. Simultaneously HE develops bladder and bowel involvement in form of retention that was relieved by catheterization. There was a history of fever (or diarrhea) 2 wks prior to this illness. This weakness has no diurnal variation .He denies any blurring of vision ,double vision, difficulty in swallowing, breathlessness, muscle pain ,rash ,fever and night sweat and weight loss during the course of illness.

he is non smoker, non-alcoholic, no significant drug history and having no past history of urinary frequency urgency and hesitancy**(Ca prostate),**coughing out of blood **(Ca bronchus),** generalized body ache **(multiple myeloma) , trauma ,**NO history exposure to OPC (if patient is male and farmer—the patient is cultivators has exposure to OPC) or other Toxin . Use arsenic free drinking water. None of her family members suffering from this type of illness.(hereditary paraparesis)

STROKE

ischaemic stroke

According to the statement of the patient or patient attendant, he was reasonable well 2 days ago. At mid noon of that day he was working/doing daily activities in his house suddenly he noticed weakness right side of his body. The weakness was progressive and few hrs later he was totally unable to move right side of his body. He also noticed that his mouth is deviated toward the left side and food accumulate in right check with dribbling of saliva from right side. This episode was not associated with headache, vomiting, fever and convulsion. The patient was fully conscious /Drowsy. Initially patient has difficulty in Swallowing especially liquid food and slurred speech (**only mention if pt give such HO**) subsequently both improved. The patient denies any visual disturbance like blurring of vision, &double of vision, vertigo, difficulty in speech, any bowel and bladder disturbance during or after these episodes. The patient also denies presence chronic daily morning headache with nausea **(ICSOL**) with focal neurological sign ,joint pain rash (**vaculitie**s) ,recent and previous history of head injury

. The patient is hypertensive for 5 years with irregular medication and for last few months he was abstinence from anti-hypertensive drugs. He is non diabeticug history History of irregularly taking anti-HTN drug s Betanol for last 2 year. Also give history of using OCP (in case of female)

History of past illness

The patient had no previous history of similar type attack (MS , recurrent stroke), TB and malignancy .. exertional chest pain , palpitation and valvular heart disease

Drug history

History of irregularly taking anti-HTN drug s Betanol for last 2 year. Also give history of using OCP (in case of female)

PERSONAL HISTORY

The patient is smoker and taking 10 stick / per day for last 45 years, non alcoholic and no history of IV drug user and addiction.

Family history

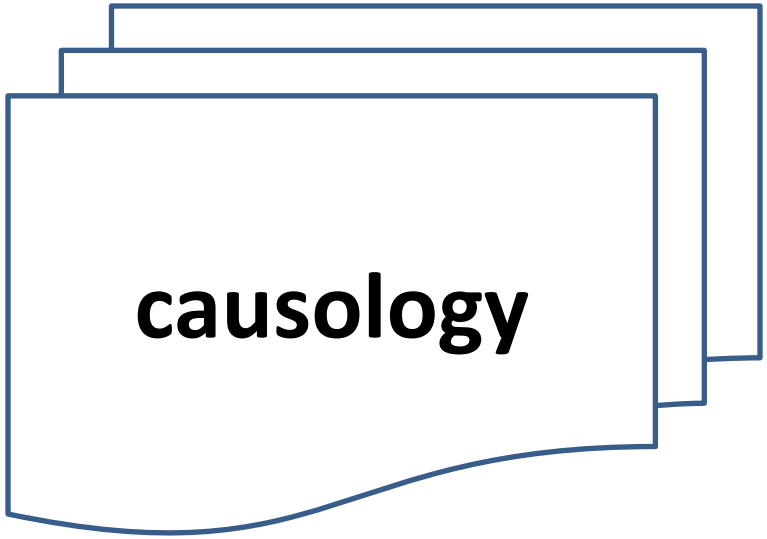
Both of father and mother was hypertensive and used died from acute attack of stroke and rest of the family members healthy and enjoining sound health

Menstrual and obstetrical history

If female no bad obstetrical history

haemorrhagic stroke

According to the statement of the patient or patient attended, he was reasonable well 2 days ago. At mid noon of that day he was working/doing daily activities in his house suddenly he complaint of severe headache and vomiting followed by inability to move right side of the body. The headache was spontaneous onset, continuous and associated with vomiting for several time and the vomiting was non projectile and contained semi digest food particle.


causology

spastic paraparesis –common (MBB) S

compressive myelopathy	**non compressive**
to remember **3 TIME** T--Trauma T—Tuberculosi/ POtt T—TUMOR Metastatic carcinoma e.g. breast, prostate, bronchus Neural tumor i. meningioma, ii. neurofibroma, iii. ependymoma hematological i. lymphoma, ii. leukaemia I--Intervertebral disc prolapse M—multiple Myeloma E--Epidural abscess	C**ongenita**l 1. Hereditary spastic paraplegia 2. Fried reich ataxia (if pt is child) **inflammatory** 1. acute Transverse myelitis **Vascular** 1. Anterior spinal artery thrombosis **Metabolic** 1. Vitamin B12 deficiency a. SCD **Infection** : 1. Tabes dorsalis **Degenerative** 1. Motor neuron disease 2. Syringomyelia (only mention if quadriparesis—here upper limb is lower motor and lower limb is upper motor type lesion)

ONLY FOR ‘4T + MD (At least remember this 6)

T--Trauma
T—Tuberculosi/ POtt
T—TUMOR
T-- Transverse myelitis
M—MND (MND—Lateral sclerosis)
D—degenerative DISC disease eg. -- Intervertebral disc prolapse

SPASTIC PARAPARESIS –detail (post graduate)

compressive myelopathy

extradural Vertebral 80% to remember **3 TIME**

T--Trauma

T—Tuberculosi/ POtt

T—TUMOR

Metastatic carcinoma

e.g. breast, prostate, bronchus

I--Intervertebral disc prolapse

M--Myeloma

E--Epidural abscess

intradural,

extramedullary(Meninges) 15%

1. **Tumours e.g.**
   a. Neural tumor
      i. meningioma,
      ii. neurofibroma,
      iii. ependymoma,
   b. metastasis tumor
   c. hematological
      i. Lymphoma, & leukaemia
2. Epidural abscess

intramedullary (Spinal cord) 5%

1. Neural Tumours
   a. glioma,
   b. ependymoma,
2. Metastasis

non compressive

Congenital

1. Hereditary spastic paraplegia
2. Fried reich ataxia

inflammatory

1. acute Transverse myelitis
2. spinal MS
3. SLE with anti-phospholipid syndrome

Vascular

1. Anterior spinal artery thrombosis
2. Spinal AVM

Metabolic

1. Vitamin B12 deficiency
   a. SCD

Infection :

1. Tabes dorsalis

Degenerative

1. Motor neuron disease
2. Syringomyelia

(only mention if quadriparesis—here upper limb is lower motor and lower limb is upper motor type lesion)

flaccid paraparesis

peripheral nerve	spinal cord
1. GBS 2. motor neuropathy due to any cause a. CMT b. CIDP 3. Acute intermittent porphyria 4. chronic lead poisoning 5. OPC 6. hereditary motor neuropathy 7. leprosy 8. diabetic amyotrophy (usually unilateral)	1. any spinal cord lesion with spinal shock 2. Tabes dorsalis 3. MND(progressive muscle atrophy) 4. Fried reich ataxia electrolyte 1. hypokalaemia with periodic paralysis neuromuscular junction 1. myasthenia graves muscle – 1. any form of myopathy
for MBBS	
G-MAIL. COM G- GBS M- MND A- Acute intermittent porphyria I-Inherited-- hereditary motor neuropathy L- chronic lead poisoning	COM-- any causes of motor neuropathy CMT CIDP PLUS hypokalaemia (never forget to tell this)

central causes of paraparesis	Acute paraparesis
To remember –MASHIC **M-** parasagital **meningioma** **A—** thrombosis of unpaired **ant.**cerebral artery **S-** thrombosis of superior **sagital** sinus **H- Hydrocephal**us **I—** multiple cerebral **infarction** **C-- cerebral** palsy	**A—peripheral** **1. spinal cord /spastic** **a)compression** 1. Trauma 2. TB / potts 3. Prolapsed intervertbral DISC **b)noncompressive** **I)Vascular** 1. Anterior spinal artery thrombosis 2. Spinal AVM **II)inflammatory :** 1. acute transverse myelitis **2.flaccid** 1. GBS 2. Acute intermittent porphyria 3. lead poisoning / toxin (alcohol) **B)Central causes** 1. thrombosis of superior sagital sinus 2. thrombosis of unpaired ant.cerebral artery 3. bullet injury to para sagital region

Causes Progressive paraparesis

Spinal cord

compressive

1. **TB / potts**
2. **Tumours e.g.**
    a. **Neural tumor**
        i. **meningioma,**
        ii. **neurofibroma,**
        iii. **ependymoma,**
    b. **metastasis tumor**
    c. **hematological**
        i. **Lymphoma, & leukaemia**

non-compressive

Congenital

1. **Hereditary spastic paraplegia**
2. **Fried reich ataxia**

Metabolic

a. **Vitamin B12 deficiency --SCD**

Infection :

1. **Tabes dorsalis**

Degenerative

1. **Motor neuron disease**
2. **Syringomyelia (if quadriparesis)**

central causes

1. **parasagital meningioma**

peripheral neuropathy

1. **CIDP**
2. **CMT**
3. **MMN—multifocal motor neuropathy**
4. **Diabetic amyotrophy**
5. **TOXIC –arsenic , chronic lead**

myopathy

hereditary (LMF…BD)

L— Limb girdle

M— Myotonic dystrophy

F— Facioscapulohumeral(FSH)

B— Becker

D— Duchenne

ENDOCRINE –O--CAT

O-- Osteomalacia

C— Cushing's & Conn's syndrome

A—Acromegaly & Addison's disease

T— Hyper & Hypothyroidism

causes of recurrent or episodic weakness (para or quadriparesis)	spastic paraparesis with normal sensory level
brain 1. MS 2. TIA OF BRAIN STEAM muscle –periodic paralysis 1. Channelopathies a. Paramyotonia congenita (Na) b. Hyperkalaemic periodic paralysis (Na) c. hypokalaemic periodic paralysis (Na+Ca) d. Myotonia congenital Thomsen's disease (Ca) 2. thyrotoxic periodic paralysis 3. metabolic myopahty NEUROMUSCULAR JUNCTION : 1. Myasthenia graves 2. Eaton lambert syndrome Recurrent Hypokalaemia (diuretic /laxative)	1. MND 2. Hereditary spastic paraparesis 3. Bilateral stroke (quadriparesis) 4. paraneoplastic 5. early intramedullary tumor (late sensory loss) 1. central causes of paraparesis PSA---IN---CMH P—parasagital meningioma S—thrombosis of superior sagital sinus A---thrombosis of unpaired ant.cerebral artery C—cerebral palsy M—multiple cerebral infarction H—Hydrocephalus

quadriparesis with dysphagia	Flaccid paraparesis with sensory loss
GMB G— 1. GBS M— 1. MND 2. Myasthenia graves 3. Multiple sclerosis B— 1. bilateral stroke 2. brain stem stroke Thyroid disorder muscle weakness –due to myopathy dysphagia due to ---Retrosternal compression	Poly neuropathy 1. DM 2. Deficiency 3. leprosy 4. Toxic 5. paraneoplastic 6. ureamia CIDP hereditary motor sensory neuropathy

flaccid paraparesis with normal sensory intact	
any cause of pure motor neuropathy **or G mail.com** **PGT –IN -CLD** **P-- porphyria** **G-- GBS** **T--Toxic** **C—CMT** **L—LEPROSY** **D—DM—amyotrophy** **spinal cord lesion with spinal shock**	**G-MAIL. COM** **G-** GBS **M-** MND **A-** Acute intermittent porphyria **I-**Inherited-- hereditary motor neuropathy **L-** chronic lead poisoning **C** **any causes of motor neuropathy** CMT CIDP **O—OPC or T OXIN** **M— other causes muscle weak ness** **hypokalaemia (never forget to tell this)** **D—DM—amyotrophy**

Flaccid paraparesis with normal jerk and sensory	dissociated sensory loss
1. **MYOPATHY** 2. **HYPOKALAEMIA** 3. **MYASTHENIA** 4. **RECOVERY STAGE OF SPINAL STROKE**	1. **syringomyelia (quadriparesis)** 2. **Ant.spinal artery thrombosis(quadriparesis)** 3. **brownsquard syndrome (unilateral weakness)**

unilateral leg weakness / wasting	unilateral wasting of upper limb
brain 1. stoke / monoplegia 2. CP—cerebral palsy ant. Horn cell of spinal cord 1. MND 2. Poliomyelitis 3. DM—Amyotrophy Roots / radiculopathy 1. PLID/lumber disc prolapse 2. Spondylitis 3. Malignancy plexus / plexopathy (lumber plexus) 1. Malignancy 2. Vasculitis 3. haematoma peripheral nerve 1. leprosy	brain 1. stoke / monoplegia 2. CP—cerebral palsy ant.horn cell of spinal cord 1. MND 2. Poliomyelitis Roots / radiculopathy 1. Cervical disc prolapse 2. Spondylitis 3. Malignancy plexus / plexopathy (bronchial pleux) 1. Malignancy 2. Vasculitis 3. haematoma peripheral nerve 1. leprosy

causes of proximal muscle weakness

HIDE--DMP

H—hereditary (LMF…BD)
- **L— Limb girdle**
- **M— Myotonic dystrophy**
- **F— Facioscapulohumeral(FSH)**
- **B— Becker**
- **D— Duchenne**

I-INFLAMATORY (PID)
- **P--Polymyositis**
- **I--Inclusion body myositis(distal effects)**
- **D--Dermatomyositis**

D-DRUG & TOXIC

Drug-–ABCD—CVS
- **A—Amiodarone,**
- **B-- Beta-blockers,**
- **C—Chloroquine**
- **D—Diuretic , Zidovudin ,**
- **C—Ciclosporin, Corticosteroid**
- **V—Vincristine,**
- **S-- Statins**

toxin —
- **Alcohol (chronic and acute syndromes)**
- **Amphetamines/cocaine/ heroin**
- **Vitamin E**
- **Organophosphates**
- **Snake venom**

ENDOCRINE & METABOLIC

ENDOCRINE –O…CAT
- O-- Osteomalacia
- C— Cushing's & Conn's syndrome
- A—Acromegaly & Addison's disease
- T— Hyperthyroidism & Hypothyroidism

METABOLIC
- Mitochondrial myopathy
- electrolytes
  - Hypokalaemia
  - Hypercalcaemia
  - (disseminated bony metastases)

other causes of muscle weakness

D-
- **DM**

M-
- **-Myasthenia graves**

P--
- **Paraneoplastic**
- **• Carcinomatousneuromyopathy**
- **Periodic paralysis**

common casues of peripheral neuropathy for MBBS	
VITAMIN—D V—VITAMIN deficiency (B1, B6,B12) I—INFECTIVE --Leprosy T—TOXIC-- MALA m- mercury, A—Alcohol, L- lead A--arsenic A—AUTO-IMMUNE and HERIDARY / genetic 1. Charcot–Marie–Tooth disease (CMT) M—METABOLIC & ENDOCRINE 1. Diabetes 2. Renal failure/ Uraemia 3. Hypothyroid 4. porphyria 5. Sarcoidosis	I---INFLAMMATORY 1. GBS--Guillain–Barré syndrome 2. CIDP--Chronic inflammatory demyelinating polyradiculoneuropathy 3. Vasculitis a. polyarteritis nodosa, b. Wegener's granulomatosis c. rheumatoid arthritis, SLE N—NEOPLASTIC 1. infiltration 2. lymphoma 3. multiple myeloma (paraprotien) 4. paraneoplastic (bronchial Ca) D—DRUG

causes of neuropathy for post graduates

VITAMIN—D

V—VITAMIN

1. Thiamin
2. Pyridoxine
3. Vitamin B12
4. Vitamin E

I—INFECTIVE--BALL

1. B- Brucellosis
2. A- AIDS/HIV
3. L--Leprosy
4. L--Lyme

T—TOXIC

MALTA
m- mercury, A—Alcohol, L- lead,
T—thalidomide, A-- arsenic

1. Alcohol
2. organophosphates,
3. lead, arsenic, mercury, solvents
4. Nitrous oxide (recreational use)

A—AUTO-IMMUNE and HERIDARY / genetic

1. Charcot–Marie–Tooth disease (CMT)
2. Hereditary neuropathy with liability to pressure palsies (HNPP)
3. Hereditary sensory ± autonomic neuropathies (HSN, HSAN)
4. Familial amyloid polyneuropathy
5. Hereditary neuralgic amyotrophy

M—METABOLIC & ENDOCRINE

1. Diabetes
2. Hypothyroid
3. Acromegaly
4. Renal failure
5. Porphyria
6. Sarcoidosis

causes of neuropathy for post graduates (CONTINUE)

I---INFLAMMATORY

1. GBS--Guillain–Barré syndrome
2. CIDP--Chronic inflammatory demyelinating polyradiculoneuropathy
3. Vasculitis
   a. polyarteritis nodosa,
   b. Wegener's granulomatosis
   c. rheumatoid arthritis, SLE
4. Paraneoplastic (antibody-mediated)

N—NEOPLASTIC

1. infiltration
2. lymphoma
3. multiple myeloma (paraprotien)
4. paraneoplastic (bronchial Ca)

D—DRUG

CASTING MP Vote D(the) MP

C— cisplatin
A—Amiodarone/ Albendazole
S—Statin
T— thalidomide
I—isoniazid
N—nitroforuntin
G—Gold
VOTE— vincristine
D-- dapsone
M— metronidazole,
P- Phenytoin

in Davidson 22

1. Amiodarone
2. Antibiotics
   a. dapsone, isoniazid,metronidazole, ethambutol
3. Antiretrovirals
4. Chemotherapy
   a. cisplatin, vincristine,thalidomide
5. Phenytoin

Others Amyloidosis

Critical illness polyneuropathy/myopathy

acute neuropathy	Multifocal neuropathy (mononeuritis multiplex)
ABCD—PGT A— Alcohol B—Vasculitis (PAN) C—Cryoglobinaemia D—DM P— porphyria G—GBS T—Toxic 1. organophosphates, 2. lead, 3. arsenic, 4. mercury	VDRL__MASHI V— Vasculitis D— Diabetes mellitus R—RA L— leprosy, Lyme disease/ LYMPHOMA …….x…….x……. M—Malignancy A—Amyloidosis S— Sarcoidosis HI-- HIV
Pes Cavus	**nerve thickening**
P^H of CSF C—CMT S—Spinocerebellar Ataxia F—Friedriech Ataxia P—Peripheral neuropathy H—Herediatery motor neuropathy	NACLAS N—neurofibroma A—Acromegaly C—CIDP L—Leprosy A— Amyloidosis S— Sarcoidosis

motor neuropathy	sensory neuropathy
PGT –IN -CLD P-- porphyria G-- GBS T--Toxic C—CMT L—LEPROSY D—DM	LUCS—BD L—Leprosy U—uraemia C—carcinoma S—syphilis B—B12 D—DM

painfull neuropathy	joint pain with peripheral neuropathy	peripheral and Autonomic neuropathy
ABCD P-VAT A—Alcohol B—B12 C—carcinoma D—Diabetes P—Porphyria V—Vasculitis A—Arsenic T—Thalidamide	1. SLE 2. RA 3. Sjogren 4. Vasculitis---PAN , wG 5. paraneoplastic 6. uraemia 7. Sarcoidosis 8. Amyloidosis 9. Drug	GDP BASA G— GBS D— Diabetes P— porphyria B—Butulism A—amyloidosis S—Sjogren A—AIDS

dysphagia



Dysphagia

duration	
onset	sudden---neurological gradual ---mechanical
progression	progressively increasing –mechanical static –neurological intermittent /diurnal variation –at the end of day or dyphagia at later part of meal —myasthenia gravis
type of food	liquid > solid -→ in neurological causes solid food > liquid food –mechanical equal for both → advance stage of disease then take HO that initially at which patent feel dysphagia
pain	painful dysphagia—esophagitis painless dyspahgia –neurological and mechanical causes

Timing of dysphagia	difficulties in initiation of swallowing →oro-pharyngial / neurological food sticking after swallowing → esophageal or mechanical
associated feature	chocking , dysarthia , hoarseness of voice , limb weakness –neurological
	Ho recurrent stroke , dementia/ poor memory , emotional labile →pseudobulbar palsy
	intermittent dysphagia , more for liquid , more on lying and eased y standing and moving around after –achalasia
	joint pain , tightening of skin of hand , Raynaud(finger become pale in exposure to cold) -→ systemic sclerosis
	History of DM or autonomic neuropathy
	HO cough , chest pain, haemotypsis , smoking –lung carcinoma
HO heartburn	esophagitis

Prototype history of dysphagia

neurological

According to the statement of the patient he was reasonable well 4days back then suddenly developed difficulty in swallowing. He feels difficulties in initiation of swallowing which is sometimes associated with chocking and nasal regurgitation. He feels difficulty more in liquid food than solid food. This difficulty is painless, static and having no diurnal (**myasthenia gravis**) and postural variation ((**achalasia**)). it also associated with difficulty in articulation ,phonation ,hoarseness of voice .but he denies any history of limb weakness, joint pain , tightening of skin , color change of finger on exposure to cold (**raynaud -→ systemic sclerosis**) . He also denies any history of cough up of blood, chest pain,

mechanical

According to the statement of the patient he was reasonable well 4months back then insidiously developed difficulty in swallowing. This difficulty was pain less progressively without diurnal (**myasthenia gravis**) and postural variation (**achalasia**). He feels sensation like that food is sticking mid chest after swallowing. At the beginning He feels difficulty more in solid food than liquid food but now feels difficulty both solid and liquid food equally . he denies difficulty in articulation ,phonation ,hoarseness of voice . limb weakness, joint pain , tightening of skin , color change of finger on exposure to cold (**raynaud -→ systemic sclerosis**) . He also denies any history of cough up of blood, chest pain

Causology of dysphagia

oro-pharyngeal or neuromuscular	Oesophageal/ mechanical
Neurological 1. Bulbar palsy a. GBS b. MND c. MS 2. pseudobulbarpalsy 3. Cerebrovascular accident 4. DM-neuropahty	**intrinsic causes /with in lumen** **1. stricture** a. peptic ulcer b. fibrous ring **2. Malignant lesion** a. Ca oesophagus b. ca stomach fundus **3. oesophagitis** a. peptic b. candidiasis c. eosinophilic d. drug –K, Iron , tetracycline , Bisphosphonate
Neuromuscular 1. Myasthenia gravis	
Others a) Iron deficiency -- Plummer-Vinson syndrome b) globus hystericus	**extrinsic (out-side lumen)causes / compression** 1. retrosternal goiter 2. thymoma 3. Ca-bronchus 4. enlarge lymphnode 5. enlarge left atrium (ortner syndrome)
	muscle / dysmotility (in wall) 1. achalasia 2. sclero-derma

Vomiting



History of Vomiting

duration	acute or chronic
frequency	how many times a day
self induced / spontaneously	self induced –GOO, PUD
content and	previous food without bile stained –GOO fecal content—intestinal obstruction watery
color	bile stained coffee ground –bleeding from stomach / Pud
hematomesis	vomiting out of blood present or not
Does the vomiting occur with nausea preceding	
diurnal variation / timing	daily early morning nausea vomiting –ICSOL ,pregnancy, alcoholism vomiting 1/2 hour after eating –GOO immediately after a meal

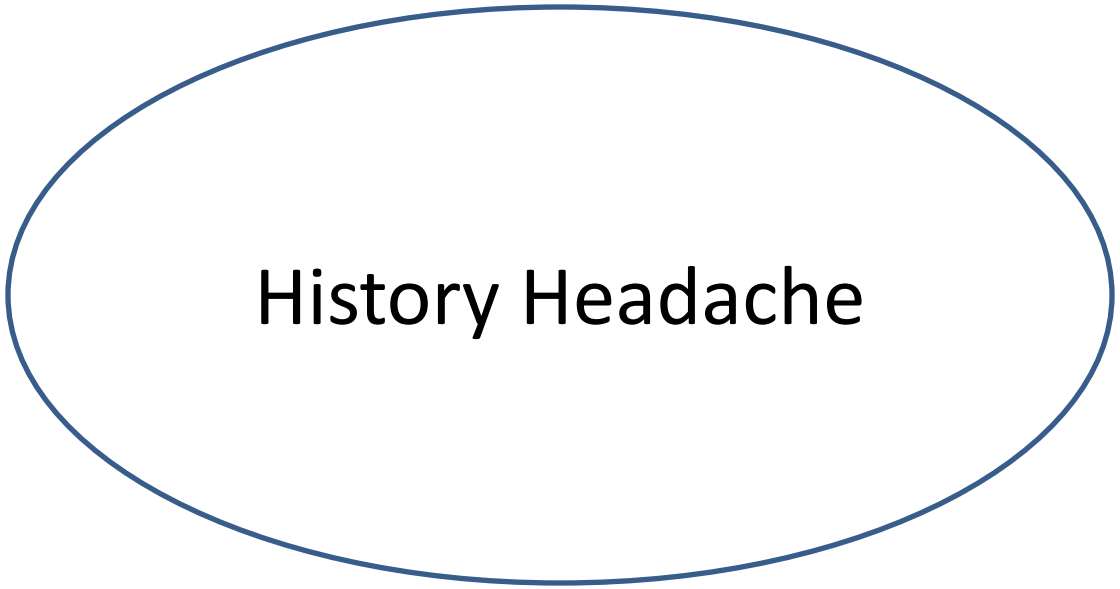
drug history	digoxin , NSAID,opium ,chemotherapy , anti-malaria drug
female	amenorrhoea → pregnancy
Personal history	Alcohol , smooking
Associated symptoms	jaundice anorexia , nausea , → viral hepatitis
	anorexia , nausea , edema , oligouria , → CKD
	abdominal pain –PUD, intestinal obstruction , acute abdomen
	abdominal pain and diarrhea –gastroenteritis
	fever and headache → meningitis / any infective causes
	headache / aura → migraine
	associated with vertigo , dizziness , tinnitus –menier disease
	chest pain , sweating -→ MI

cause of vomiting	
A— 1. Alcoholism 2. Acute abdomen a. appendicitis b. cholecystitis c. pancreatitis d. Intestinal obstruction **B** **Bacterial** –gastroenteritis **C—CNS** 1. Vestibular neuronitis /Ménière's disease 2. Migraine 3. Raised intracranial pressure – a. brain tumour 4. Meningitis **D--Drug** 1. NSAIDs 2. Opiates 3. Digoxin 4. Antibiotics 5. Cytotoxins	**E-Endocrine / metabolic** 1. Diabetic ketoacidosis 2. Addison's disease 3. Cyclical vomiting syndrome 4. Renal failure 5. Liver failure 6. electrolyte imbalance a. hyponatreamia b. Hypercalcaemia **F—function / psychogenic –** 1. bulomia nervosa 2. Anorexia nervosa **G—GIT/ gastric** 1. Peptic ulcer disease 2. Gastric cancer 3. Gastroparesis **H—** 1. hepatitis **I—infection –** 1. like UTI other --MI

name non GIT causes of vomiting	name some cause of early morning vomiting
	1. ICSOL 2. Morning sickness 3. Alcoholism 4. uremia 5. non ulcer dyspepsia

Headache




History Headache

S--site	❖ unilateral –migraine • generalized , radiate occiput to forward—tension • temporal region ---gaint cell arteritis • along the distribution of fifth nerve --- trigeminal neuralgia • retro-orbital –dengue • unilateral and peri-orbital—cluste
O--onset	❖ sudden/ acute –SAH, cluster , trigeminal neural gia • subacute –migraine • gradual ---tension ,ICSOL
C--character	❖throbbing ---migraine • thunder clap ----SAH • dull aching Tight band around head, –tension • lancinating—trigeminal • dull—ICSOL • tearing –cluster head ache

R—Radiation in head radiation is unlikely that why here R—indication relation with age and sex	age □ any age—tension □ before—40 –migraine □ third decade –cluster □ after 50—trigeminal neuralgia
	sex □ male --cluster □ female –migraine □ tension –any sex
A--association	□ aura (flashing lights or zigzag lines in your visio)= migraine □ vomiting, photophobia phonophobia —migraine □ anxiety and stress---tension headache □ unilateral lacrimation ,nasal congestion ,conjuntival injection horners and ptosis—cluster □ neck rigidity and kernig sign and feve= meningitis

T--timing	diurnal variation	✓daily morning head ache –ICSOL □ at the end of day – tension headache ✓very early morning—dawn -- cluster
	constant	□ constant may persist day ,week or month—tension
	intermittent	□ intermittent—hour today –migraine
		□ periodic ,30-90 min occur in cluster over month / week ,in between attack gap of several months—cluster
		□ Very brief but repetitive—trigeminal neuralgia
E—Exaggerating factor	•precipitated by touching trigger zones , by cold wind blowing on the face, or by eating, but no physical si--trigeminal neuralgia	
	alcohol . sleep disturbance ,OCP--Migraine	
	Orgasm ---Benign coital headache	
	Worse bending forward and increasing in straining ,coughing =raised intracranial pressure	

S--severity	▯ mild—tension and ICSOL ▯ moderate to severe –migraine and ▯ severe --- cluster ▯ very severe—trigeminal , SAH
drug history	OCP—migraine, nitrate ,calcium channel blockers
feature of raised intracranial pressure	mild , Dull ache, Worse in morning, improves through the day Associated with morning vomiting , Worse bending forward and increasing in straining ,coughing

Migraine

According statement of the patient she was reasonable well 6 hrs back then she suddenly developed unilateral Severe headache. It was throbbing in nature and localized to the right side of her head, and was concentrated around the eye area. It reaches at maximum severity over the course of about an hour. Shortly before it came on she noticed a tingling sensation in right side of her face and experience flashes of zigzag light line. She feels nauseous with the headache, and has vomited on one or two occasions. Her speech and vision are not affected .Since it started, she has prefer to lie down in bed in calm and quite condition with the lights off and also complained that sounds makes the headache worse.. She had HO of similar type headache in remission and relapse pattern for the last 4 yrs. For few months the attack becomes very frequent then earlier. She is a-febrile and conscious & it sometimes exaggerated by sleep disturbance, after drinking coffee, chocolate and most of the times relief with strong analgesic But the headache not Worse by bending forward and straining, coughing. the headache have no diurnal variation and not associated with lacrimation , dropping eyelids ,conjunctival congestion (**cluster headache**) , sneezing and nasal congestion (sinusitis) . She is married for 6 yr and having an issues with normal menstrual cycle taking OCP for last two years .her mens not seems to be trigger for this headache. Her mother and aunt suffered from headaches and regularly missed work because of this.

Tension headache

According statement of the patient she was reasonable well 24 hr back then she gradually developed headache and which is persistent till now .Initially The headache was dull aching in nature subsequently turn into Tight band like sensation around head. It began from occipital nuchal areas and radiated anteriorly to the frontal region up to eye bilaterally. this head ache was not associated with (or preceded by)nausea, and vomiting ,visual abnormality (migraine), sneezing, nasal (sinusitis)and conjunctival congestion, lacrimation (cluster headache) and no significant change of intensity of headache occur in exposure to light and noise (differentiate from from migraine), . She is afebrile and denied any motor or sensory deficits. it sometimes exaggerated by sleep disturbance, anxiety and stress but no relation with chocolate and coffee and any prescribe or unprescribe drug . She first experience this headache at age of 20 since then it tend to occur two to three times per months. For last one month, she had been suffering from headaches at least once or twice a week .which most marked at evening and most of the time relieved by mild analgesic like paracetamol But the headache not Worse by bending forward and straining, coughing

Primary headache –MTB—CAT--I	secondary headache
M—Migraine	RINITID
T—Tension headache	R— Referred pain
B—benign paroxysmal headache	1. orbit ,
C—Cluster headache	2. neck / spine
A—atypical facial pain	3. temporomandibular joint,
T—Trigeminal neuralgia	I—increased ICP
in new davidsons	1. brain tumor ,
1. Migraine (with or without aura)	2. BIH/IIH
2. Tension-type headache	N—neuralgia –post herpetic neural gia
3. Trigeminal autonomic cephalalgia (including cluster headache)	I— intracerebral bleeding
	1. subarachnoid haemorrhage
4. Primary stabbing/coughing/exertional/sex-related headache	2. intracerebral haematoma
	3. subdural haematoma
5. Thunderclap headache	T—Temporal arteritis , vasculitis, arthritis
6. New daily persistent headache syndrome	I— infection
……	1. meningitis
headache with high ESR	2. encephalitis
a. gain cell arteritis	3. brain abscess
b. TB meningitis	4. sinusitis
c. ICSOL-tumor / brain abscess	5. dengue
d. intracranial haemorrhage → leukaemima	D—drug
	1. nitrate
	2. vasodilator

headache with right sided ptosis	head ache with 6 nerve palsy
1. Post –communicating artery aneurysm _SAH 2. ICSOL with third nerve palsy (false localizing sign) 1. Basilar migraine 2. cavernous sinus thrombosis 3. brainstem stroke 4. Cluster head ache / migraineus neuralgia	1. IIH/BIH 2. ICSOL 3. Stroke brainstem 4. tubercular meningitis 5. migraine
headache with vomiting for 6 months	**head ache with high BP**
1. due t raised ICP a. ICSOL b. chronic subdural haematoma c. BIH d. hydrocephalus 2. chronic meningitis (TB) 3. migraine 4. Drug 5. vestibular neuritis 6. uraemia	1. phaechromocytoma 2. Conns 3. SAH / intracerebral haematoma 4. ICSOL 5. essential hypertension with headache due to any causes 6. coarctation of aorta

sudden severe headache	Recurrent headache
1. Subarachnoid haemorrhage 2. intracerebral haematoma 3. acute meningitis 4. acute angle glaucoma 5. Vasodilator drug 6. cavernous sinus thrombosis 7. 1st attack of a. migraine b. cluster head ache c. Trigeminal neural gia d. sinusitis 8. Pituitary apoplexy 9. post-coital headache	1. migraine 2. cluster headache 3. trigeminal neuralgia 4. post herpetic neuralgia 5. chronic sinusitis 6. BIH 7. sometimes –tension headache

chronic dull headache	headache with loss of vision
1. tension headache 2. chronic migraine 3. medication overuse headache 4. chronic meningitis 5. ICSOL 6. hemicranias continu 7. post traumatic (chr.sub dural haema toma) 8. cervical spondylitis 9. gaint cel larteritis	1. migraine 2. tempoaral arteritis 3. posterior communicating artery aneurysm 4. acute angle glaucoma 5. trauma 6. Optic neuritis 7. intracerebral hematoma (brainstem)

red flag sign –FOCAR of	
sign	**causes**
F-- Focal neurological symptoms (other than for typically migrainous)	**Intracranial mass lesion** **a. Vascular** **b. Neoplastic** **c. Infection**
O--Sudden onset (maximal immediately or within minutes)	**a. Subarachnoid haemorrhage** **b. Cerebral venous sinus thrombosis** **c. Pituitary apoplexy** **d. Meningitis**
C-- Constitutional symptoms **a. Weight loss & General malaise** **b. Pyrexia & Meningism** **c. Rash**	**a. Meningoencephalitis** **b. Neoplastic (lymphoma ormetastases)** **c. Inflammatory (vasculitic)**
A-- New onset aged > 60 yrs	**Temporal arteritis**
R- Raised intracranial pressure **a. worse on wakening/lying down,** **b. associated vomiting**	**Intracranial mass lesion**